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FLASHLIGHT OF AN ALBINO PORCUPINE, THE SECOND OF ITS KIND EVER REPORTED

SCENES FROM EVERY LAND

By GILBERT H. GROSVENOR
Editor of the National Geographic Magazine

OWING to the large advance subscription to *"Scenes from Every Land,"* which will be published by the National Geographic Society in the fall, we have been able to arrange for a larger and handsomer publication than had been intended. The volume will contain 250 illustrations, nearly all being full page. It will be bound in olive-green buckram, in such form as to be very durable. The book will contain a small chart of the world in five colors, to serve as a guide to the illustrations, and a bibliography of the best books descriptive of foreign countries, natural history, and general geography, including gazetteers and atlases. The volume will be 7x10¼ inches, and is being printed on the same superior paper used by the Magazine. The price of this unique and valuable volume is $1.00, postpaid, and as the **EDITION WILL BE LIMITED,** your order should be sent in at once on the blank below. The volume will be delivered about September 30.

Hon. O. P. Austin,
Secretary National Geographic Society,
Washington, D. C.:

Please reserve for me_____of "Scenes from Every Land," for which I will remit $1.00 per copy when the volume is delivered.

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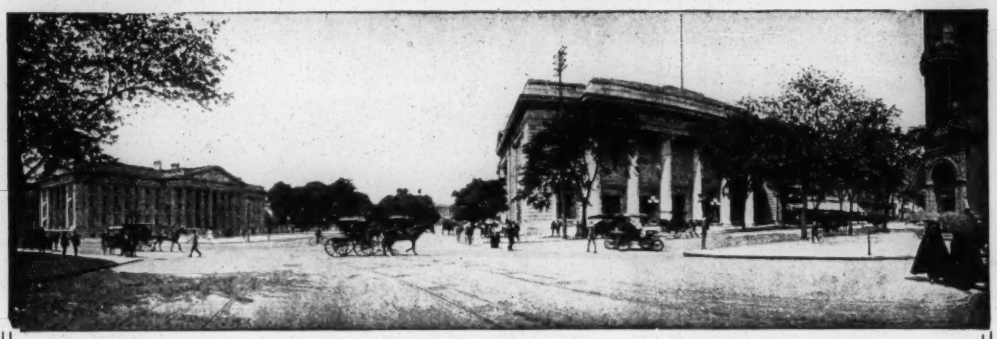

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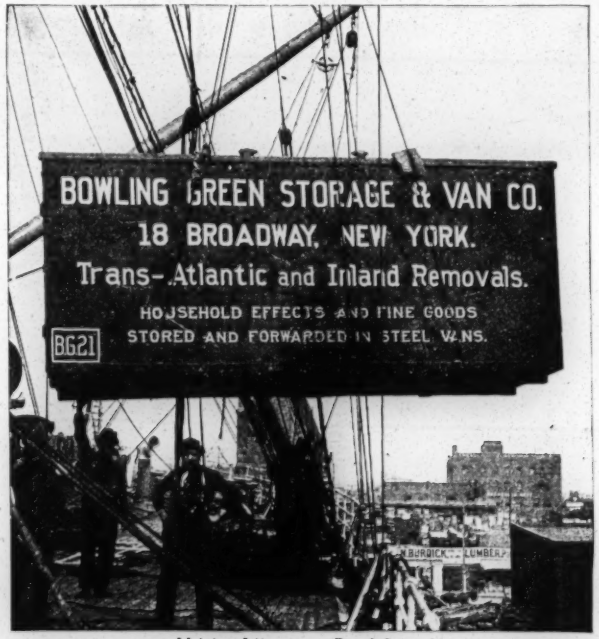
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Supplement to the National

SMITH SOUND REGION

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0 50 100 Nautical Miles

Noted Explorers of the AMERICAN (Smith Sound) Route

Elisha Kent Kane (American) 1853-55

Isaac Israel Hayes (American) 1860-61

Charles F. Hall (American) 1870-73

Sir Geo. Nares (English) 1875-76

General A. W. Greely (American) 1881-84

R. E. Peary (American) 1891-1906

Peary, April 21, 1902 84°17'

Lincoln Sea

Greenland

East Greenland Sea

Peary Land

Hazen Land

Lockwood and Brainard May 13, 1882 83°24'

Markham 1.

Markham May 12, 1876 83°20'

John Murray Mascot Inlet

Clements Markham Inlet

Mt. Gilmer

Mt. Nicolay

Mt. Arthur

Mt. Parry

Mt. Sheridan

Mt. Sumner

Mt. Sherman

Mt. Hilgard

Mt. Schley

Mt. Wolcott

Mt. Hubbard

Mt. Hilgard

Mt. Wolcott

Mt. Hubbard

Mt. Schley

Mt. Sumner

Mt. Sherman

Mt. Parry

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Mt. Arthur

Mt. Nicolay

Mt. Schley

Mt. Wolcott

Mt. Hubbard

Mt. Hilgard

Supplement to the National Geographic Magazine, July 1907, Washington, D. C.

Explorers of Franz Josef Land

- Payer and Weyprecht (Austrian) 1872-4
- Leigh Smith (British) 1880-2
- Frederic Jackson (British) 1894-7
- Fridtjof Nansen (Norwegian) 1896
- Walter Wellman & Evelyn B. Baldwin (American) 1898-9
- Duke of Abruzzi (Italian) 1899-1900
- Anthony Fiala (American) 1903-1905

Coast Explored by

- United States
- British
- Scandinavian (Norwegian, Swedish and Danish)
- German and Austrian
- Dutch
- Italian
- Russian

The Routes of the Explorers have the color of their native country.

The Circumpolar Stations of 1881-1883 are indicated thus:

* *C. P. Sta.*, with name of nationality following.

XUM

(American) 1853-55
Isaac Israel Hayes
(American) 1860-61
Charles F. Hall
(American) 1870-73
Sir Geo. Nares
(English)
1875-76
General
A. W. Greely
(American)
1881-84
R.E. Peary
(American)
1891-
1906

Peary's Explorations:
Over the inland ice of Greenland, 1886
Across Greenland, 1892
Second Crossing of Greenland, 1895
Around Northern end of Greenland, 1900
Trip towards North Pole, 1902

Nordenskjöld Sea
New Siberia
De Long Islands
Bennett I.
Kotelnoi I.
Stolbovoi I.
Semenof I.
Liakhof I.
Great Liakhof I.
Little Liakhof I.
Byelkof I.
Anjou April 9, 1821
Thaddeus I.
Fadyeefsker
Figurin
Baron Toll 1901
Sannikof Land
June 2, 1894
Sept. 22, 1893 Fram frozen fast in ice pack
Nov. 1
Oct. 1
Aug. 1
Feb. 2
Nov. 2
Dec. 25
May 1
Aug. 2
March 31
Feb. 2, 1895
Jeannette sunk June 12, 1881
Jeannette I.
June 24
Leontief May 27, 1770
May 17
Jan. 28, 1881
May 27
Sept. 19, 1881
Berry
Sept. 1, 1878
Nordenskjöld's Northeast Passage
Probable Drift of alleged Wreckage of "Jeannette" 1881-1884
Conjectural Drift of Melville-Bryant Cask, 1899-1902
Nansen April 7, 1895 86° 14'
Cagni April 25, 1900 86° 34'
North Pole
Continual Day March 21 to September 23
Highest Latitude reached by Peary, April 26, 1906
Peary, April 21, 1902 84° 17'
Markham, May 12, 1876 83° 20'
Aldrich, May 17, 1876
C. Alfred Ernest
Lands Look
Sverdrup 1902
C. Thomas Hubbard
Peary, June 1906
Sverdrup 1900
Crocker Land
Seen by Peary, 1906
Nov. 14, 1872
Feb. 2, 1873
Lonely I.
Discovered Aug. 28, 1878
Toll Bay
Taimir Bay
Nordenskjöld Group
Taimir I.
Heiberg I.
Brusevits Is.
Rognes Is.
Hansen I.
Middendorff Fjord
C. Middendorff
C. Bismarck
C. Mauritius
Great Ice Cape
C. Edwards
C. Remote
Pakhtusov I.
Ice Harbor
Toll I.
St. Peter
St. Andrew
St. Paul
Thaddeus Bay
St. Samuel I.
C. Chelyuskin
Aug. 20, 1878
Preobrashenya I.
Anabarsk
Nordvik
Taimyr
Peninsula
Gulf of Anadir
Tchuktchen Peninsula
Kolintchin Bay
Port Providence
C. Chukotskoi
C. Bering
Aug. 5, 1879
Port Clarence
Pittlekai
"Vega" (Nordenskjöld) Sept. 28, 1878-July 18, 1879
C. Serdze Kamen
Arakam I.
St. Lawrence I.
East Cape
C. Deshnef
Digmede Is.
Herald Bank
Herald I.
C. Hawaii
Plover I.
C. Wankarem
C. Onman
C. Yakan
C. Thomas
Gilders Head
Wrangel I.
Holy Cross Bay
Anadir B.
Anadir R.
Anadir Mts.
Tchuktchi Mts.
Kolyma Range
Verkhne Kolimsk
Sredne Kolimsk
Nizhni Kolimsk
Omolonsk
Stony I.
Krestovoi I.
Bear Islands
Four Pillars
C. Bear
C. Baranof
Angarka
Anyuisk
Anyui R.
Penshina
Markovo
Mt. Pal Pal
Tchaun Bay
C. Shalagskoi
Ayon I.
Indigirka R.
Yana R.
Yana Bay
Kasatshye
Ustyansk
Shanski
Sashiversk
Omuloi
Verkhoyansk Mts.
Oyanline Mts.
Suntar Khayata Mts.
Yakutsk
Lena R.
Lena Delta
Kurkudan
Laudon
Kolyma R.
Kolyma Mts.
Kolyma Bay
Kolyma Lowland
Kalima
Selliyach Bay
Suyatoi Nos
Holy Cape
Oskogin
Russkoye Ustye
Great Chukotsk Peninsula
Chukotsk Mts.
Kotzebue Sound
Seward Pen.
Nome
Port Clarence
Ft. St. Michael
Unalaklik
Norton Sound
Yukon
Kaltag
Nulato
Koyukuk R.
Koyukuk
Tanana
Tanana R.
Rampart
Baker
Yukon R.
Yukon Flats
Porcupine R.
Mt. McKinley 20,464
Alaska Range
Endicott Range
Brooks Range
Colville R.
Colville
Beechey
Return Reef
Franklin, 1826
Camden Bay
Demarcation Pt.
Aug. 19
Herschel I.
Beaufort Sea
Mackenzie Bay
Richardson
Pt. Barrow
Tangent Pt.
Icy Cape
Keenan Land ?
Aug. 5, 1850
Aug. 1, 1850
Pt. Hope
C. Lisburne
Prince of Wales
Bering Strait
Collinson, Aug. 27, 1850
Amundsen's Journey to San Francisco 1905
Amundsen's Journey to Eagle 1905-06
Mackenzie R.
Liverpool Bay
Return in "Fram" 1902
Sept. 5, 1853
Lady Franklin Bay
Banks Land
Banks Strait
Melville I.
Parry Islands
Prince Patrick I.
Prince Gustaf Adolf Sea
Prince Gustaf Adolf Land
Meek Pt.
McClure, Sept. 20, 1851 to April 16, 1853
Investigator abandoned 1853
Parry's Return to England 1820
Mercy Bay
Hecla and Griper Bay
Barrow Str.
Prince Regent Inlet
Lancaster Sd.
Barrow Str.
Melville Bay
North Water
Baffin Bay
Smith Sd.
Kane Basin
Kane Sea
Robeson Channel
Hall Land
Washington Land
Grant Land
Grinnell Land
Garfield Coast
Mt. Arthur
Aldrich
Hazen I.
Explored by Greely 1881-82
Lockwood & Brainard 83° 24'
Greely's Farthest
Peary's Farthest 1900
Peary, May 16, 1900
Peary, May 12, 1906
Peary Land
Peary Channel
Peary's Farthest 1892
Peary's Farthest 1895
Peary's Farthest 1902
Peary's Farthest 1900
Peary's Farthest 1906
Nansen's Farthest
Ziegler
Duke of Abruzzi
Franz Josef Land
Hvidtenland
Graham Bell I.
Wilczek I.
Salm I.
Hall I.
McClintock I.
Prince George I.
Cambridge Bay
Alexandra I.
Prince Rudolph Land
Victoria Sea
C. Mary Harmsworth
King Charles Land
White I.
Northeast Land
Sweden Foreland
C. Leigh Smith
Parry July 23, April 4 1827
Verlegen Huk
Seven Islands
Andrew's Ascension in balloon July 1897
July 19, 1896
Aug. 3, 1896
Jan. 2, 1896
Nansen's Ascension in balloon
Greenland
East Greenland Sea
Unexplored
Academy Land
Academy Glacier
Melville Land
Hell Gate
Inglefield Land
Lockwood Land
Markham
Britannia
Joseph Mary
Columbia
Richards
Aldrich
Alfred Ernest
Thomas Hubbard
Peary
Sverdrup
Lands Look
Mt. Arthur
Garfield
Grinnell
Washington
Kane Basin
Humboldt Glacier
Hayes
Ellesmere Land
Grant Land
Axel Heiberg Land
Isachsen
Eureka Sound
Ellesmere Land
Cape Sabine
Cape Athol
Clarence Head
North Water
Cape Melville
Melville Bay
Sverdrup's
Cape Bridgman
Cape Morris Jesup
Cape Washington
Cape Bourbon
Cape Britannia
Cape Columbia
Cape Richards
Cape Joseph Mary
Cape Alfred Ernest
Cape Thomas Hubbard
Cape Aldrich
Cape Markham
Cape Sheridan
Cape Columbia
Cape Hawks
Cape Isachsen
Cape Sabine
Cape Athol
Cape Melville
Cape Bridgman
Cape Morris Jesup
Cape Washington
Cape Bourbon
Cape Britannia
Cape Columbia
Cape Richards
Cape Joseph Mary
Cape Alfred Ernest
Cape Thomas Hubbard
Cape Aldrich
Cape Markham
Cape Sheridan
Cape Columbia
Cape Hawks
Cape Isachsen

Passage to Polar Ocean discovered by American Charles Francis Hall, 1870
The inhabitable coast is under the jurisdiction Danish Government
Passage discovered by American Elisha Kent Kane, 1853
The INTERIOR with a Glacier thickness of 100

Longitude West from Greenwich
Longitude East from Greenwich
Arctic Ocean
Polar Sea
Greenland
Baffin
Peninsula
North Devon
Philpot I.
Bathurst I.
Melville I.
Parry Islands
Banks Land
Prince Patrick I.
Prince Gustaf Adolf Sea
Prince Gustaf Adolf Land
Ellesmere Land
Grant Land
Axel Heiberg Land
Grinnell Land
Garfield Coast
Washington Land
Kane Basin
Humboldt Glacier
Hayes
Inglefield Land
Lockwood Land
Markham
Britannia
Joseph Mary
Columbia
Richards
Aldrich
Alfred Ernest
Thomas Hubbard
Peary
Sverdrup
Lands Look
Mt. Arthur
Garfield
Grinnell
Washington
Kane Basin
Humboldt Glacier
Hayes
Ellesmere Land
Grant Land
Axel Heiberg Land
Isachsen
Eureka Sound
Ellesmere Land
Cape Sabine
Cape Athol
Clarence Head
North Water
Cape Melville
Melville Bay
Sverdrup's
Cape Bridgman
Cape Morris Jesup
Cape Washington
Cape Bourbon
Cape Britannia
Cape Columbia
Cape Richards
Cape Joseph Mary
Cape Alfred Ernest
Cape Thomas Hubbard
Cape Aldrich
Cape Markham
Cape Sheridan
Cape Columbia
Cape Hawks
Cape Isachsen

The Routes of the Explorers have the color of their native country.

The Circumpolar Stations of 1881-1883 are indicated thus:

* *C. P. Sta.*, with name of nationality following.

Explorers' Routes:

Parry (British) 1819

North ☆ Pole

Continual Day
March 21 to September 23

Highest Latitude reached by Peary, 87°6'

Passage to Polar Ocean discovered by American Charles Francis Hall, 1870

The inhabitable coast of Greenland is under the jurisdiction of the Danish Government

Passage discovered by American Elisha Kent Kane, 1853

The INTERIOR is entirely covered with a Glacier of a probable thickness of 1000 to 3000 feet

Nordenskjöld Sea

Kara Sea

BARENTS SEA

GREENLAND SEA

East Greenland Current

Unexplored

ARCTIC OCEAN

Polynia Is.

Parry Islands

GREENLAND

FINLAND

SWEDEN

NORWAY

ICELAND

Franz Josef Land

Prince Rudolph Land

Victoria Land

Greenwich

Longitude East from Greenwich

Longitude West from Greenwich

Conjectural Drift of Melville-Bryant Cask, 1899-1905

Probable Drift of alleged Wreckage of "Jeannette" 1881-1884

Second German North Polar Expedition

Return of "Germania"

Limit of Icebergs

Northern Limit of Trees

Ziegler Polar Expedition of 1903-05

Duke of Abruzzi's Return

Nansen's Return in "Winaward"

Nansen in "Vega" Southern "Fram"

Austro-Hungarian Return

Duke of Abruzzi

Duke of Orleans, 1905

Duke of Orleans, 1907

Prince of Monaco, 1906

Peary, April 21, 1902 84° 17'

Peary, April 26, 1906

Nansen April 7, 1895 86° 14'

Cagni April 25, 1900 86° 34'

Parry July 23, 1827 82° 45'

Markham, May 12, 1876 83° 20'

Aldrich, May 17, 1876

Lonely I. Discovered Aug. 28, 1878

C. Chelyuskin Aug. 20, 1878

Nov. 14, 1872

Feb. 2, 1873

June 4, 1895

Feb. 2, 1895

March 31

Aug. 1879

Jan. 2, 1896

July 19, 1896

Aug. 3, 1896

Andrée's Ascension in balloon July 11, 1897

Peary 1893-95

Peary 1898

Peary 1900

Peary 1902

Peary May 16, 1900

Peary May 21, 1900

Peary 1901

Peary 1906

Sept. 22, 1893 Fram frozen fast in ice pack

Nov. 1

Oct. 1

Nov. 2

Feb. 2

Aug. 1

May 1 Drift

Dec. 25

June 2, 1894

Anjou April 5, 1821

Baron Toll 1901

Sannikof Land

Bennett I. Emma

Byelkof I.

Semenof I.

Hall I.

Wilczek I.

Graham Bell I.

Salm I.

Hvidtenland

Cambridge Bay

Alexandra I.

C. Mary Harmsworth

King Charles Land

White I. e Land

Northeast Land

Edge Island (Staus Foreland)

Hope I.

Spitzbergen Bank

Bear I.

Swedish Foreland

Abel I.

Jena I.

C. Mohn

Olga Str.

C. Leigh Smith

C. Bismarck

C. Mauritius

Great Ice Cape

C. Middendorff

C. Edwards

C. Remote

Pakhtusov I.

Meshdusharr I.

Goose Land

Kolguyef I.

Kanin Pen.

Kanin

Kolda

Durakova

White Sea

Soloveski I.

Kem

Suyatoi Nos

Gavrilovo

C. Teriberka

Kildin

Kola

Alexandrovsk

Kandalaksha

Ideraalmi

Varanger Fjord

Enare

Tornea

Haparanda

Gulf of Bothnia

Uleaborg

Vasa

Umea

Lulea

Bosekop

C. P. Sta. (Norwegian)

North Cape

Hammerfest

Icebergs

Narvik

Trondhjem

Levanger

Throndhjem

Petermann Peak 9442

Jan Mayen

C. P. Sta. (Austrian)

Eskifiord

Akureyri

Grefa Jökull

Mt. Hekla

Reykjavik

Hvalfiord

Faxa Fjord

Breidi Fjord

Langanes

Dimpivog

C. Rauðagnupr

C. Daltanes

Barclay Bay

Mt. Rigny 7825

C. Grivel

C. Irminger

Nuna Iliit

Kangertitsiak

C. Hegemann

C. Hildebrandt

Greenstein Glacier

Ingolf

Christian IX Land

Hansen Land

Petermann Land

Nyboe Land

Amdrup Land

Clavering I.

Scoresby Land

Traill Land

Jameson Land

Liverpool Land

Gael Hamke Bay

Kuldi

Sodomekhe

Aji

Balkashi

Turakh

Sagastir

Barkin

Nordenskjöld Sea

Taimir Gulf

Taimir Peninsula

L. Taimur

Taimir Bay

Taimir Group

Taimir Strait

Nordenskjöld

Toll Bay

Thaddeus Bay

St. Peter

St. Andrew

St. Paul

St. Samuel I.

Heiberg I.

Sverdrup Is.

Schmidt Is.

Rudolph I.

Rogers Is.

Brusevits Is.

Fjord

Cape Arch

Harbor

Proshtchenova I.

Andurakia

North Bay

Kamenia Is.

Kjellman I.

Hansen I.

Sterlegof

Cape Taimur

Cape Baranof

Cape Semenof

Cape Byelkof

Cape Anjou

Cape Bereshkih

Figurin I.

Cape Figurin

Cape Ansaya

Cape Yakan

Cape Yakan Tas

Cape Yelnui I.

Cape Yelnui Tas

Cape Yakutin Tas

Cape Yakutin Bay

Cape Yakutin

Cape Yakutin Nos

Peary's Explorations:
Over the inland ice of Greenland, 1886
Across Greenland, 1892
Second Crossing of Greenland, 1895
Around Northern end of Greenland, 1900
Trip towards North Pole, 1902
Nearest the Pole, 1906
Farthest West, 1906

Elevations and Depths are given in English Feet.

Soundings where bottom has not been reached are indicated thus: 6813

THE MATTHEWS-NORTHRUP WORKS, BUFFALO, N.Y.

North Pole

Continual Day
March 21 to September 23

Highest Latitude reached by Peary, 1906

Peary, April 26, 1906

Peary, April 21, 1902
84° 17'

Markham, May 12, 1876
83° 20'

Crocker Land
Seen by Peary, 1906

Aldrich, May 17, 1876

C. Thomas Hubbard
Peary, June 1906
Sverdrup 1900-02

Axel Heiberg Land

Prince Gustaf Adolf Sea

Ellef Ringnes Land

Amund Ringnes Land

Prince Patrick I.

Parry Islands

Melville I.
Parry, 1819-20

Banks Land

Princess Royal I.

Baring Land

Prince Albert Land

Wollaston Land

Victoria Land

King Hakon VII Land

Melville Sound

McClure, Sept. 20, '51 to April 16, '53
Investigator" abandoned 1853

Parry's return to England 1820

McClure 1850-'51

Hansen (Amundsen) 1908

Richardson Aug. 8, 1826

Franklin died June 11, 1847

Franklin ratio Island 1853

Franklin's Isthmus

Boothia Peninsula

Magnetic Pole

Gulf of Boothia

Prince of Wales Island

North Somerset

Cockburn Land

Russell I.

Barrow Str.

Lancaster Sound

Parry, 1819

Bylot I.

Baffin Land

North Devon

Philpot I.

Sept. 5, 1853

Return in "Fram" 1902

Northwest Passage

Middle Ice

North Water

Middle Water

Sverdrup's Route

Probable Route of Sir John Franklin, 1845

Prince William Land

North Galloway

Melville Peninsula

Spice Is.

Peregrine Pt.

Rae Isthmus

Arctic Circle

Fox Channel

Southampton Island

Melville Bay

Cape York

Duke of Orleans, 1905

Pte de Gerlache

Cape Fligely

Wrangel I.

H. Henry Parish

East Greenland Sea

Melville Land

Prudence Bay

Academy Land

Academy Glacier

Unexplored

Lambert Land

King William Land

Hayestack

Koldewey I.

Marmilia I.

Shannon I.

Ardencaple Inlet

Petermann Peak

Scoresby Land

Jameson Land

Nov. 5

Barclay Bay

Mt. Rigny

C. Grivel

Nuna Land

C. Irminger

Dec. 20

Dec. 25

C. Dan

Ingolf Fjelds

Christian IX Land

King Frederick VIII Land

Peary, 1886

Lapps of Nordenskjöld

Nordenskjöld, 1383

Disko

Godthaab

Lichtenfels

Frederiksdal

Julianehaab

Aputajultsoh

Sverdrup in "Fram" 1898

Cape Farewell

Iceberg limit

Second German North Pole

July 10, 1869

Jan Mayen
C.P.Sta. (Austrian)

July 15

July 31

Aug. 30, 1870

Return of "Germania"

Aug. 26, 1870

Sept. 1, 1870

Langanes

C. Rauðinupur

Dimmivog

Akureyri

Dyrafa Jökull

ICELAND

Hvammdal

Mt. Hekla

Reykjavik

Breidi Fjord

Faxa Fjord

North C.

Nov. 27

Hekla

Grimsey

Passage to Polar Ocean discovered by American Charles Francis Hall, 1870

The inhabitable coast of Greenland is under the jurisdiction of the Danish Government

Passage discovered by American Elisha Kent Kane, 1853

GREENLAND

The INTERIOR is entirely covered with a Glacier of a probable thickness of 1000 to 3000 feet

BAFFIN BAY

Davis Strait

Cumberland Sound

Cumberland Peninsula

Kingmiut (Hall Peninsula)

Frobisher Bay

Lake Harbour

Kangerdlugsuatsiak

Ingolfs Fjelde

Sermilik (Eqede Fjord)

Danmarks Ø

Disko Bay

Godhavn

Holsteinsborg

Sukkertoppen

Julianehaab

Lindenow Fjord

Christian IV. I.

Skjoldungen

Griffenfeldt I.

Nunarssuak

Frederikshaab

Jameson Land

Scoresby Land

Explorers' Routes:

Parry (British) 1819

Franklin and Richardson (British) 1821 & 1826

Franklin (British) 1845-'47('48)

McClure's (Br.) Northwest Passage, 1850-'53

Second German North Pole Expedition, 1869-'70

Austro-Hungarian Expedition 1872-'73

Nordenskjöld Northeast Passage In "Vega" (Swedish) 1878-'79

DeLong in "Jeanette" (United States) 1880-1881

A.W. Greely (United States) 1881-84 (Cape Sabine to Cape Washington.

Nansen In "Fram" (Norwegian) 1893-'96

"Duke of Abruzzi In "Stella Polare" (Italian) 1900

Sverdrup In "Fram" (Norwegian 1898-1902

Peary (United States)

Ziegler Polar Expedition of 1903-'05 (A. Fiala)

Amundsen's Northwest Passage In "Gjöa" (Norwegian) 1903-1906

Duke of Orleans In "Belgica" 1905

Journey's by foot, sledges or boats: (with color of Explorer)

Telegraph Lines:

Railroads:

Steamship Routes:

Winter Harbors:

Average Limit of Icepack and solid Drift Ice

Tundra

The National Geographic Magazine
Map of

THE NORTH POLE REGIONS

Prepared by

GILBERT H. GROSVENOR, Editor.

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0 50 100 150 200 250 300 350 400 450 500
Nautical Miles.

0 50 100 200 300 400 500 600
Statute Miles.

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THE NATIONAL GEOGRAPHIC MAGAZINE

SOME RECENT INSTANCES OF NATIONAL ALTRUISM*

The Efforts of the United States to Aid the Peoples of Cuba, Porto Rico and the Philippines

BY HON. WILLIAM H. TAFT
SECRETARY OF WAR

I ASK your attention today to the page of the nation's history covering the last nine years, with the hope of showing that there never has been on the part of any country a greater exhibition of pure altruism than that exhibited by the United States from the beginning of the Spanish War down to the present day, toward the peoples who were immediately affected.

As we read the history of a man or a nation, that which excites our admiration is courageous action for which no motive can be found save that of a desire to discharge a duty to mankind. A study of the conduct of our nation with respect to Cuba, Porto Rico, and the Philippines, covering now nearly a decade, ought to fill every American with pride. I do not mean to say that there were not Americans who entered upon the war or favored the Cuban or the Philippine policy from motives of selfishness, and with a hope of increasing our trade and enlarging our dominion from the mere love of exploitation and empire, but the great body of the people went into and fought out the Cuban war, assumed the burden of the temporary government of Cuba, and the more or less permanent government of Porto Rico, fought out the Philippine wars and assumed the government of the Philippines all from a sense of duty only, and that most reluctantly, because they could not foresee the extent of the burdens which we were taking up.

It is hardly necessary for me to recall the resistance that President McKinley, in 1898, offered to the popular movement, that carried him slowly but surely to the point of an open conflict with Spain. That which the American people believed to be the oppression of the Cuban people, the misgovernment of that beautiful island, and the continued failure of Spain to restore any kind of order—all compelled the United States to interfere to prevent a continuance of that which

* An address to the Miller's Convention in Saint Louis, Mo., May 30, 1907.

seemed to our people to be an international scandal at the doors of this country; and as we went into it, in order that we might free ourselves from the charge of land-grabbing or spirit of conquest, we made the declaration that we would not retain Cuba, but would make her an independent republic as soon as circumstances would permit. The wisdom of this self-denying declaration has often been questioned, and I am not prepared myself to say that it was the wiser course to pursue. So far as our country was concerned, it was. But recent events give rise to a doubt whether, in our anxiety to make clear our own unselfish motive, we may not have committed ourselves to a policy not best adapted to the welfare of the Cubans. However that may be, it is certain that when it was adopted, it was adopted in what was thought to be the best interests of Cuba, and what was known to be in accordance with the unselfish desire of the American people to help their oppressed neighbors.

It is true that the presence of yellow fever in Havana had threatened the health of this country in its southern ports, and that the failure of Spain to remove this persisting danger has been frequently cited to justify on international grounds the declaration of war; but we all of us know that the real ground for the war was the sympathy that the Americans had with a people struggling against an oppressive and misguided rule in a contest carried over many years and which had laid waste one of the most beautiful islands of the world. This was what led us on, and he who says that it was not true altruism does not understand either the American people or the motives which guide them.

$300,000,000 EXPENDED AND NOT A CENT DEMANDED IN RETURN

We expended in the Cuban war upwards of $300,000,000, and we never have invited from Cuba the return of a single cent. We offered up in deaths and wounds and disease in that war the lives of 148 officers and over 4,100 enlisted men. We paid $20,000,000 to Spain under the treaty of peace. The exact consideration for this sum it may be difficult to state, but the result of the payment was the treaty, and by that treaty was secured a cession of Cuba and Porto Rico and the Philippines freed from the debts which Spain had incurred in their maintenance. It is not too much to say, therefore, that by this payment the United States freed the islands from a heavy burden of debt which, under ordinary conditions of a transfer, might have followed them under American sovereignty.

When the Spanish army left Cuba, the country had long had but little governmental control, except that exercised in the immediate neighborhood of the troops who were about departing. The ordinary social restraints had been destroyed, the cities were crowded with thousands of refugees and reconcentrados who were exasperated by suffering and the death of their families and friends, and it was deemed necessary to take especial precautions for the prevention of riot and bloodshed. The officers of the United States Army in Cuba were at once occupied in instituting, under the direction of the military governor and the department commanders, a general civil administration for which no other governmental machinery existed and in aiding the existing municipal governments in the performance of their duties. It was necessary to furnish immediate relief for the prevailing distress among the starving reconcentrados. Five million four hundred and ninety-three thousand rations, at a cost of $1,500,000 to the United States, were issued to distressed persons through the agency of the officers of the army.

The condition of the soldiers of the Cuban army, who had been separated from any productive industry and who upon the conclusion of hostilities were left substantially without homes or occupation and with no pay coming to them from any source, required that some relief should be afforded which would en-

able them to disband and return to peaceful employment. To facilitate this, $75 apiece was paid to each Cuban soldier on his bringing in and depositing his arms. In this way $2,550,000 were paid out of the United States Treasury, and upon the payment being completed, the Cuban army separated and ceased to exist.

NUMBER OF PUPILS AT SCHOOL INCREASED 500 PER CENT IN 5 YEARS

The subject of sanitation of the island, from one end to the other, and especially in the towns left in a filthy condition, was taken up with the thoroughness of the army surgeons, and in the course of this effort one of the greatest and most useful discoveries known to medical science, to wit, the transmission of disease by the mosquitoes, was added to the sum of human knowledge. For four years this sanitation went on, and under American occupation the amount expended for this out of the Cuban treasury reached the large sum of $10,000,000.

Cuba, an island 44,000 square miles in area, with a population of 1,600,000, had enrolled in her public schools under Spanish control 36,306 pupils. There were practically no separate school buildings. The pupils were collected in the residences of the teachers. There were few books, and no maps, blackboards, desks, or other school apparatus. The teaching was of the most primitive character and was carried on under a fee system which excluded altogether the children of the poor. At the end of the first six months of American occupation the public school enrollment of the island numbered 143,000, and this was increasing until the island was turned over, in May, 1903, when it had reached 200,000.

The prisons, the squalor and misery of which it is hard to exaggerate, were thoroughly cleansed and put upon the basis of modern requirements.

The controversy between the church and the government over church property was settled by arbitration, and an agreement satisfactory to both sides was reached.

The restoration of industry in the island was necessarily slow, but in this regard especially did the government and the people of the United States show their earnest desire to aid by a generous policy the people for whose freedom they had spent so much money and so many lives. In pleading for a reduction of duty upon Cuban tobacco and sugar, President Roosevelt said to Congress:

"We are a wealthy and powerful nation; Cuba is a young republic, still weak, who owes to us her birth, whose whole future, whose very life, must depend on our attitude toward her. I ask that we help her as she struggles upward along the painful and difficult road of self-governing independence. I ask this aid for her because she is weak, because she needs it, because we have already aided her. I ask that open-handed help, of a kind which a self-respecting people can accept, be given to Cuba, for the very reason that we have given her such help in the past. Our soldiers fought to give her freedom; and for three years our representatives, civil and military, have toiled unceasingly, facing disease of a peculiarly sinister and fatal type with patient and uncomplaining fortitude, to teach her how to use aright her new freedom. Never in history has any alien country been thus administered with such high integrity of purpose, such wise judgment, and such single-minded devotion to the country's interests. Now I ask that the Cubans be given all possible chance to use to the best advantage the freedom of which Americans have such right to be proud and for which so many American lives have been sacrificed."

In accordance with this recommendation, a treaty was made between the United States and the Republic of Cuba, whereby provision was made that products of Cuba coming into the United States should receive the benefit of reductions in the tariff ranging from 20 to 40 per cent of the regular duties on such products. Under the beneficent influence of this favorable discrimination in tariff rates, the prosperity of Cuba increased,

so that this year, in spite of an insurrection, to which I shall hereafter refer, she will export 1,200,000 tons of sugar, the largest in her history, and as large a tobacco crop in matter of value as she ever has produced. It should be said, however, that the drouth of this year has interfered with sugar planting for future crops, and that it has much injured the food crops. The actual loss in revenue to the United States from the reduction of tariff rates by the treaty is certainly not less than $10,000,000 a year.

AMERICAN INTERVENTION IN 1906

In May, 1903, the United States turned over to the Republic the control of Cuba. During the intervention there had been held elections for municipal officers, and also for the members of a constitutional convention. At the instance of the United States, there was introduced into the constitution what was known as the "Platt amendment," by which the United States was given the right to intervene at any time in order to maintain in Cuba a government of law and order. We thus secured the right to act in support of the government which we had paid out so much money and so much blood to establish. For three years and a half the Republic of Cuba maintained itself with great apparent prosperity, but an abuse by the party in control of its executive power in respect to elections brought on an insurrection, which the government of the Republic had not properly prepared itself to resist or suppress, and the island was soon in the throes of a war which bade fair to destroy for several years its agricultural wealth, and to bring about again that awful condition which insurrections against Spain had produced. Again the United States intervened; sent first a formidable fleet, and then an army of 5,000 men, secured a disbandment of the opposing forces, and established a provisional government. This it did under a proclamation which promised a restoration of the Republic, as soon as tranquillity was restored to such an extent as to permit the holding of a fair election and the determination of those persons upon whom a government could be properly devolved.

The Republic had not complied with its constitution in several important respects—it had not made provision for an independent judiciary; it had not provided autonomy in its municipalities, and it had not provided an election law which would secure, as required by the constitution, minority representation. A commission under the provisional government is now drafting an election law, including a law for an electoral census, a law making the judiciary independent, a civil-service law, and a law establishing autonomy in municipalities. It is to be hoped that within seven months we may take an electoral census; then hold a municipal election, and six months thereafter a national election; and then, after a further interval of four months, turn over the government to the persons properly elected.

In this intervention the United States has already spent about $4,000,000 and will be put to a possible additional expense of perhaps $3,000,000 more. The President is given authority to receive from the Cuban treasury such sums as the condition of that treasury may permit, to reimburse the United States for the expense of intervention, but it is quite unlikely that, in the various calls that there are upon the Cuban treasury for works of improvement and for the bettering of the government, any large part of these funds thus expended will be reimbursed to the United States.

PORTO RICO

The sovereignty of the Island of Porto Rico passed to the United States on the 18th of October, 1898, and this with the full consent of the people of that island. On May 1, 1900, the military government ceased and a civil government, in accordance with the act of Congress, was inaugurated, and this continues unchanged down to the present. It includes a governor appointed by the President, an executive council appointed by the

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President, and an elective national assembly. The legislature is made up of the two houses of the assembly and the executive council. Of the civil servants in the central government, 343 are Americans and 2,548 are natives.

Very early in the American history of the island a cyclone passed over it, destroying a large part of its coffee culture; $200,000 was expended from the emergency fund of the United States Treasury to buy rations for those left in distress. Under the law all the customs are turned into the treasury of Porto Rico for the maintenance of the island government, while the United States pays the cost of the army, the navy, the lighthouse service, the coast surveys, the harbor improvements, the marine hospital support, the post-office deficit, the weather bureau, and the upkeep of the agricultural experiment stations. Under the last normal year of Spanish rule there was a total revenue of $3,664,000 and a total expenditure of $2,869,000, including the central, provincial, and municipal receipts and expenditures. For the year 1906 the total revenue, provincial and municipal, was $4,250,000 and the expenditure $4,054,000.

There is maintained in the island a Porto Rican regiment, paid by the United States, and in addition a constabulary or rural police, maintained at the expense of the island treasury. The island is policed by 700 men, and complete tranquillity reigns. Under the Spanish régime, there was in the island a force of over a thousand rural guards, beside a thousand municipal and urban police, and in addition the regular Spanish army of 4,000 men and several regiments of militia. Ladronism was by no means rare.

THE ENROLLMENT OF PUPILS HAS INCREASED 600 PER CENT IN 8 YEARS

Down to the last day of Spanish rule, there was not in this island, containing a million people, a single building constructed for or dedicated to public instruction, and the enrollment of pupils was but 21,000. There are today in this island 97 such buildings, and the enrollment of pupils has reached the number of 130,000. In the last year of Spanish rule there was expended $35,000 in gold for public education. Under the present government, there is expended a total of $854,000 each year.

When the Spanish domination ended, there were 172 miles of macadamized road. Since the United States took control, there have been constructed 291 miles more, making in all now a total of 463 miles of finely planned and admirably constructed macadamized roads—as fine roads as there are in the world.

In the course of the administration of this island, the medical authorities of the government discovered a disease of anæmia which was epidemic and was produced by a microbe called the "hook worm." It so much impaired the energy of those who suffered from it, and so often led to complete prostration and death, that it became necessary to undertake its cure by widespread governmental effort. I am glad to say that the effect of the government's treatment has been much to reduce the extent and severity of the disease, and that it has been brought under control.

There is complete free trade between Porto Rico and the United States, and all customs duties collected in the United States on Porto Rican products subsequent to the date of Spanish evacuation, amounting to nearly $3,000,000, have been refunded to the island treasury. The loss to the revenues of the United States from the free admission of Porto Rican products is $15,000,000 annually. In the making of tobacco into cigars and cigarettes and of cane into sugar, a considerable number of the laboring class find mechanical employment, but the wealth of the island is directly dependent upon the cultivation of the soil, to cane, tobacco, coffee, and fruit, for which we in America provide the market. Without our fostering benevolence, this island would be as unhappy and prostrate as are some of the neighboring British,

French, Dutch, and Danish islands. During the last two years of Spanish domination the trade balance against the island was over $12,500,000, while the present balance of trade in favor of the island under American control is $2,500,000. The total of exports and imports has increased from about $25,000,000 under Spain to $44,000,000 under our sovereignty. At the date of the American occupation the estimated value of all agricultural land was about $30,000,000. Now the appraised value of the real property in the island reaches $100,000,000.

PHILIPPINES

The fortune or misfortune of the Cuban war carried us to the Philippines. The exigencies of the situation brought us into such relations with Aguinaldo and the Filipino troops in insurrection against Spain, that when peace came we could not turn the islands back to Spain. Our international obligations and the welfare of the people of the country prevented us from turning the government over to the military forces commanded by Aguinaldo. His attempt to carry on a government had been a failure. The failure would have been colossal, had he been given more responsibility. The only alternative was for us to take over the island ourselves and administer the government until by gradual training in partial self-government the people might become so acquainted with the art and responsibilities of government that we could ultimately leave the islands.

Accordingly we undertook, first, the establishment of order in the islands, and then the maintenance of civil government. In the course of this we had first to disperse Aguinaldo's army and then to suppress the guerrilla warfare which the country was well adapted to encourage and facilitate. In establishing order we expended $170,000,000. As order was established from place to place, municipal governments were set going with complete autonomy. Provincial governments were established with a governing board of three, in which two of the officers were appointed and one, the governor, was elected. A central government was established, with a civil governor appointed by the President and eight commissioners, five of them executive officers and American and three of them Filipinos. By changes effected in the period of six years, a majority of the provincial officers have become elective, and only one, the provincial treasurer, is appointed under the civil-service law. In July next an election will take place by which an assembly of seventy representatives, elected by the qualified voters of the Christian provinces, will constitute a national assembly, which will be one of the two houses, the other being the Philippine Commission, to constitute the legislature of the islands. The national assembly elected in July will meet for the first time in October. Thus has the promise of our government, made through President McKinley, been kept, of gradually increasing the measure of self-government extended to the Filipinos.

AMERICAN IMPROVEMENTS IN THE PHILIPPINES

Having established order by use of the military, a Philippine constabulary was created, consisting of some 5,000 men, who police the islands. Considering that the islands contain a population of now more than 7,000,000, this constabulary force is not excessive. The American troops in the islands number about 12,000. There is also a Philippine military force, known as the Philippine scouts, 4,000 in number, that are really enlisted men of the United States Army. The expenses of the United States in the islands from year to year are about $5,000,000 in the support of the army over and above what would be expended were there no Philippine scouts and were the army housed in the United States.

During the threat of famine in 1902 and 1903, arising from the death of most of the draft cattle of the islands, due to rinderpest, Congress voted $3,000,000 to

be expended for the purpose of relieving suffering.

As soon as the Americans reached the islands, even while war was flagrant, schools were established, and now there are reading, writing, and reciting in English in the Philippine Islands one-half million of children daily. The unfortunate conditions under which the use of some seven or eight different languages in different islands and different parts of the same island prevented a common medium of communication is gradually to be remedied. More people speak English than Spanish now, and in a generation the language of the islands will be English, unless the present policy is changed. Industrial and secondary schools are being established in every province, and the Philippine child by manual training is being taught the dignity of labor, though in his father's time it had always been regarded as a badge of humiliation.

We have secured the construction of a street-car system in the city of Manila thirty-five miles in length, which greatly relieves the expense of living in that city, arising from the necessary use of cabs in the absence of a street railway. We are constructing great waterworks and a comprehensive sewer system for Manila. We have constructed costly harbor works at three great ports of the islands—Manila, Iloilo, and Cebu. We have added many hundred miles to the road mileage of the islands, and have now contracts for the construction of railways, so that within a few years, under contracts now in force, the mileage of the railways will have been increased to near a thousand miles, though it was but 124 when we entered the islands. We have carried the islands through epidemics of plague and of cholera and have stamped them out. Just as we entered the islands, 75 per cent of the cattle were destroyed by rinderpest. We have discovered a method for suppressing the rinderpest which we have an efficient force of civil servants to apply, so that hereafter there is no danger that the islands will be again denuded of cattle from this cause.

We have introduced a judiciary system which commands the confidence of all; it is partly American, partly native. We have abolished the Spanish code of civil procedure, which was adapted to keep litigants in the vestibule of the courthouse forever, and have substituted a plain, practical American code.

We have purchased from the religious orders 400,000 acres of the best land in the islands, the ownership of which by them put them in a relation of hostility to 60,000 tenants, who refused to recognize their title or pay rent. Had they gone into court and sought evictions, another insurrection would have followed. The government has now purchased these lands for $7,000,000 and is engaged successfully in selling them out to the tenants on easy terms, so that in less than a decade they will become the owners of the lands.

A currency of a Philippine silver peso, maintained by law at 50 cents gold, has been substituted for the old, varying Mexican dollar. In other words, we have established there the gold standard.

We have suppressed ladronism and disorder throughout the islands, so that agriculture is now being pursued in a greater degree than ever before since the insurrection of 1896.

Business has been depressed, but is gradually recovering. The total of imports and exports has increased from $36,000,000, annual average from 1890-1894, to an annual average of $60,000,000 during the last four years.

The Congress of the United States has discriminated in favor of the islands to the extent of permitting its products to be introduced into the United States at 25 per cent reduction on the Dingley rates. It has been proposed to increase this reduction, so as to make it 75 per cent on the Dingley rates, and ultimately, in 1909, to take off the duty altogether on the products of the Philippine Islands. Such a bill passed the House of Representatives, was not voted on in the Senate, but

was strangled in committee. In the history of this bill for the first time is heard a note of selfishness in the policy of the United States toward any of her Spanish dependencies.

The sugar and tobacco interests of the country are afraid that the introduction of the Philippine products may affect them. Nothing could be further from the truth. We import now 1,200,000 tons of sugar, which comes over the tariff wall, having paid the full tariff rates, or at least only 20 per cent less. The total exportation of sugar from the Philippines in the last three or four years has not exceeded 100,000 tons. It never in the history of the islands exceeded 265,000 tons. The introduction, therefore, of Philippine sugar into the United States, assuming that it might rise to 300,000 tons, would still leave to be brought over the tariff wall 900,000 tons, and could not, therefore, in any degree affect the price of sugar in this market. If the price of sugar is not affected, then the sugar-growers and manufacturers of this country must also remain unaffected.

Figures with respect to tobacco and cigars are equally convincing that the timidity of the tobacco interests of this country in respect to the Philippine tariff bill is also unjustified. On the other hand, the opportunity to come into the markets of the United States would doubtless greatly benefit the business interests of the islands by a gradual improvement in the business tone, and we might expect ultimately the same prosperity that I have described already as conferred upon Porto Rico by the generosity of the United States in opening its markets to the people of that island. I have no doubt that in the future justice will be done in the matter of the Philippines.

THE PHILIPPINE ASSEMBLY

It may be objected that the $170,000,000 or more expended by the United States in suppressing the insurrection in the Philippines was not for the benefit of the Filipino people, resulting, as it did, in the death of many. This is a narrow view. No money or blood was ever spent more directly for the benefit of a people than this. The chaos which would have reigned and the bloody civil dissensions that would have followed, had we withdrawn from the islands and left them to their fate; under Aguinaldo and his generals, would have continued unabated for a decade, and the consequent prostrate condition of agriculture could hardly be overstated. The war was deplorable, but no other possible alternative was open to us in the discharge of our duty as a nation.

Only two laws can be said to have been enacted with a view to the selfish protection of American interests. One is the act by which the coastwise trade law will apply to the traffic directly between the United States and the Philippines. By amendment from time to time, however, its application has been postponed, and we may hope that these amendments will continue. The other is a law which discriminates in favor of goods exported directly to American ports by granting a rebate of island export duties attaching to such goods. It has reduced in a small amount the income of the islands to help American trade.

The assembly about to meet will doubtless be composed of men, a majority of whom will declare in favor of immediate independence. This is the natural result, because of the argument that appeals to the self-pride of the voters, that they are entirely fit for complete self-government. It is quite possible that much of the time of the assembly, in its first session, will be taken up in perfecting resolutions of this kind. I hope, however, that, after having given vent to their feelings upon this subject and having presented a respectful petition to Congress thereon, they may be induced to appreciate that the function of a national assembly is to legislate for the benefit of the country, and to come down to legislative action on humdrum subjects that do not necessarily involve eloquence and imagi-

nation, but do involve hard work and patriotic effort and make for the betterment of the islands.

The Philippine Islands have been treated with less generosity than either Cuba or Porto Rico, but still a great deal has been done by the United States for the Philippines and at a very heavy expense.

The statistics will show that in the case of each of the island governments the revenues have been largely augmented under American auspices, and also that the total of imports and exports has been materially increased; but the same is true of the expenditures. The Americans have given a more expensive government, because they have insisted on doing more in education, in public improvements, and in sanitation. It is easy for a government to be economical if it does not do anything.

One sometimes hears our character as benefactors to these Spanish islands questioned on the ground that the benefits conferred have been paid for by us out of the taxes collected in the islands, and therefore out of money belonging to our wards. I think I have shown by what has been said that immense sums have been paid directly out of the Treasury of the United States to aid them, and that very large sums which would be annually paid into the United States Treasury are diverted therefrom by our policy toward these islands. But, more than this, even with respect to those benefits paid for out of the revenues of the islands, are not the work of administration and the responsibility and care and judgment necessary to organize and maintain a government and devise the ways and means to better the conditions of a people to be regarded as altruistic, if only the good of the people is sought?

WHAT HAS THE UNITED STATES RECEIVED FOR ALL SHE HAS DONE

And now what has the United States received in return for all her efforts, for all her expenditure, and all her responsibilities? Let us look at her trade with the islands. In the fiscal year 1895, the last normal year of Spanish occupation, the imports into the United States from Cuba were $52,000,000; from Porto Rico, $3,000,000, and from the Philippine Islands, $5,000,000. In the fiscal year 1906 the imports into the United States from Cuba were $85,000,000; from Porto Rico, $19,000,000, and from the Philippine Islands, $12,000,000. The exports from the United States to Cuba in the fiscal year 1895 were $12,500,000; to Porto Rico, $3,000,000, and to the Philippine Islands, $120,000. For the fiscal year 1906 the exports from the United States into Cuba were about $48,000,000; into Porto Rico, $19,000,000, and into the Philippine Islands, $5,500,000. This shows a very considerable increase in the Cuban trade, a proportionate increase in the Porto Rican trade, but a smaller increase, though a considerable one, in the Philippine trade. In other words, the total trade with Cuba has increased from $65,000,000 to $130,000,000; with Porto Rico from $6,000,000 to $38,000,000, and with the Philippine Islands from $5,000,000 to $18,000,000, or a total increase in business done with these three islands of $110,000,000. While this shows a considerable increase, the profit therefrom is by no means equal to the great outlay I have set forth. I am sure that if the same liberal policy is continued and if the Philippine tariff bill of the last session is put into effect in the course of the next two or three years, that a decade, or certainly twenty-five years, will show an increase in business that will be more commensurate with the expenditure. But that increase will occur only if we continue the same altruistic spirit in dealing with these islands and give them every opportunity and aid to expand their own business and increase their own prosperous condition. In the meantime, and down to the present date, the outgo for the benefit of these islands has been enormous, while the income received by the people of the United States from them has been comparatively small.

If, then, we have not had material

recompense, have we had it in the continuing gratitude of the people whom we have aided? There have been many expressions at various times showing that at such times a feeling of gratitude existed, but he who would measure his altruism by the good will and sincere thankfulness of those whom he aids will not persist in good works. There are many reasons why we need not expect a continued feeling of gratitude from the peoples we have benefited. It is impossible always to secure American officials who are properly imbued with the spirit of sympathy for the natives that is essential to prevent race friction. We strive, of course, to go as little counter to the customs of the people as possible, but to secure needed reforms it is necessary sometimes to enforce laws that are not popular. Thus sanitary regulations needed to secure good health are irksome to such a people. They do not see the use of such severity.

Again, to carry on a government we must employ many Americans in the service, and we must, in order to secure them, pay them at a higher rate than the natives. Offices are much sought after by the natives, and the greater pay and discrimination in favor of the Americans are sure to engender dissatisfaction. We have tried to substitute natives for Americans as rapidly as possible, but we must retain some Americans for guidance. Then the native newspapers avail themselves of the freedom of the press and abuse the privilege by every kind of unfair statement to stir up native prejudice against the government and so against the Americans. This is not decreased by the hostile attitude of unthinking and unpatriotic American business men against the natives.

Finally, the character of the benefits we have conferred on these Spanish-speaking peoples is such as necessarily to imply our sense of greater capacity for self-government and our belief that we represent a higher civilization. This in itself soon rankles in the bosom of the native and dries up the flower of gratitude. It is natural that it should be so. We cannot help it. It is inseparable from the task we underake. Our reward must be in the pleasure of pushing the cause of civilization and in increasing the opportunity for progress to those less fortunate than ourselves in their environment, and not in their gratitude.

I have not touched upon and do not intend to discuss, for lack of time, what our future policy toward these three peoples must be. The problems to be presented are difficult and need a clear and calm judgment and a generous altruistic spirit for their satisfactory solution. Neither will be wanting, I am sure.

Our experience in the three countries of Cuba, Porto Rico, and the Philippines has many points in common, and the chief common feature has been the desire on the part of the American people, represented by the American Congress and the American Executive, to stimulate business, to elevate and educate the people, to maintain and preserve order, to introduce internal improvements of all sorts into the islands, to build roads and bridges and harbors, and gradually to enlarge as far as possible the control which the natives shall have over their own local government.

There have been times when abuses have crept into the administration of the islands on the part of some of the civil and military servants of the United States, but the record of the nine years since the beginning of the Spanish War, looked at from an impartial standpoint, is on the whole an unblemished record of generous, earnest effort to uplift these people, to help them on the way to self-government, and to teach them a higher and a better civilization. It is a record I confidently submit will always redound in the coming century to the high credit of the people of the United States as a generous civilizing nation charged by the accident of war with the responsibilities of guardianship of a less fortunate people and discharging that God-given responsibility in accordance with the highest ideals of the brotherhood of man.

SEVENTY-FIVE DAYS IN THE ARCTICS

By Max Fleischman

Life Member of the National Geographic Society

I HAVE so many times been asked what caused me to form the idea of spending the summer of 1906 north of the Arctic Circle that I feel impelled to give a brief account of the reasons which resulted in what proved to be the most interesting cruise it has ever been my privilege to enjoy.

I believed that with a good stout ship, properly equipped, a trip could be taken in those regions with comparative safety. I realized that it would be necessary to have the ship stocked with eighteen months' provisions, to guard against any unforeseen exigencies or of being frozen up in the ice of the far North. My chances were good, I thought, providing the ice conditions were in any way favorable, of getting into the east Greenland coast, making King William Land, and of being able to return the same year.

One fact, which I considered of primary importance, that assisted in deciding me to make the east coast of Greenland my objective point was that on Shannon Island and at another point near there are two Arctic relief stations, one established by the Baldwin-Ziegler Expedition and the other by the Swedish government under Nathorst.

Other objects of my trip were as follows:

To enter the Greenland coast near Franz Josef Fjord;

To attempt to secure live specimens of musk-ox and polar bear;

To collect specimens of bird life and study their food and habits of living;

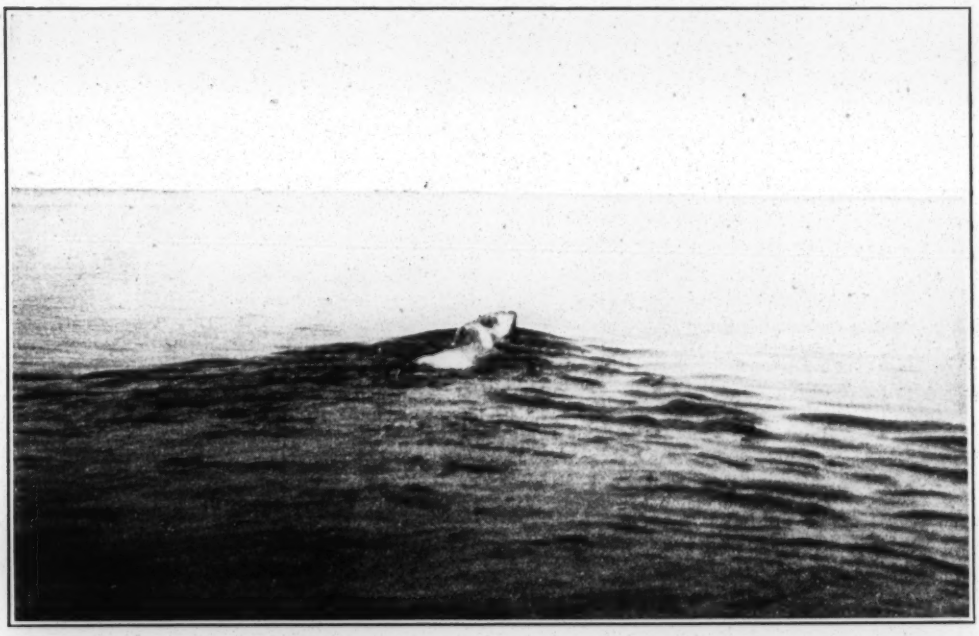


Photo from Col. Max Fleischman

Polar Bear Crossing near Ice Fields

To make some short land expeditions;
To secure what shooting we could;
If ice conditions permitted, to advance north toward King William Land.

During the winter of 1905 I entered into correspondence with Mr Magnus K. Giaever, of Tromsö, Norway, and succeeded in chartering the auxiliary barkentine *Laura*. Mr Giaever is a ship-owner of much experience in the Arctic waters. Among other cruises, he accompanied Mr Champ in the latter's Baldwin-Ziegler Relief Expedition in 1905. Mr Giaever is also owner of the ship *Frithjof*, which was chartered by Mr Wellman for his Arctic work last summer and rechartered by him for his expedition this summer. In addition to fully sustaining his reputation as an Arctic outfitter, which had preceded my acquaintance with him, Mr Giaever proved a most agreeable companion and delightful gentleman. The *Laura* was well fitted and equipped for Arctic work, having good accommodations for dark-room, taxidermy, etc. In accommodations the *Laura* had six very comfortable deck cabins, 5½ by 6, and a combination deck dining-room and saloon. She carried from one hundred to one hundred and fifty tons of coal without a deck-load, on an average consumption of two ton per day in the ice, although relying principally on sail in the open sea.

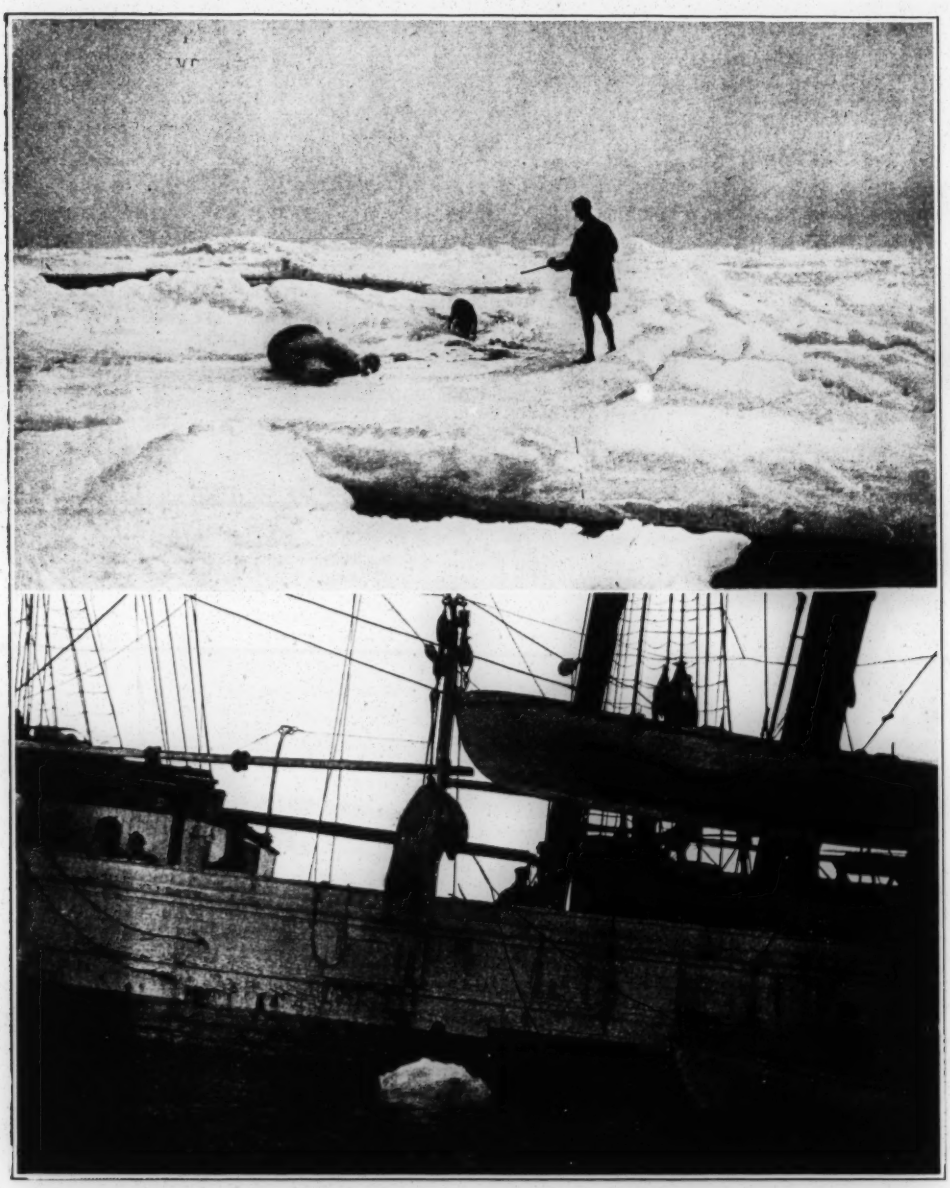
The members of my party were as follows: N. C. Livingstone Learmonth, Hanford, Blandford, England; Dr C. R. Holmes, ship surgeon; Mrs Holmes, historian; Karl Holmes, and Mrs Fleischman. All of my guests save Mr Learmonth are Cincinnatians.

Dr Holmes and myself have been criticised for allowing the ladies to accompany us, but neither of us have had cause to regret having taken them along, as they stood the cruise surprisingly well, and Mrs Holmes and Mrs Fleischman cheerfully bear testimony that they gathered a great deal of pleasure and, if anything, received benefit from their entirely novel, if unusual, experiences.

I have also been asked if time did not hang heavily upon our hands, and how we managed to amuse ourselves in order to kill what some of our inquirers termed "the dullness of it." In answer to these inquiries it has been my pleasure to reply, that so far as the writer is concerned, there was not one dull moment during the whole trip, and in this statement I have enjoyed the hearty second of all who accompanied me. As soon as one is well in the ice, there is always the interesting anticipation of what is going to happen next. During a heavy Arctic fog, which sometimes lasts two or three days at a time and which necessitates tying up to an ice floe, one does not get dull. An overly anxious Arctic traveler may, perhaps, fret or chafe a bit because of these unavoidable delays at not being able to make progress toward his destination, but he or she of philosophic mind will sit down and play a few rubbers of bridge or listen to the musical grind of the phonograph. Far be it from me to say that any of my party were philosophers, nor were they the sons or daughters of philosophers, but we found that we could endure the fretting and still fight off ennui quite successfully because of our more or less expert knowledge of cards and our love for music. A phonograph on a trip of this kind is certainly a great source of pleasure and enables a befogged or ice-bound party to pass hours that might possibly otherwise be set down as "dull."

We went aboard the *Laura* at midnight on June 16, raised anchor, and proceeded north at 3:30 a. m. on June 17. Upon arriving at Skaaro a heavy gale made it unwise to put to sea, and we staid at anchor at that port until the 19th, before again putting out, our course being toward Spitzbergen. Passing Bear Island, we encountered heavy masses of drift ice.

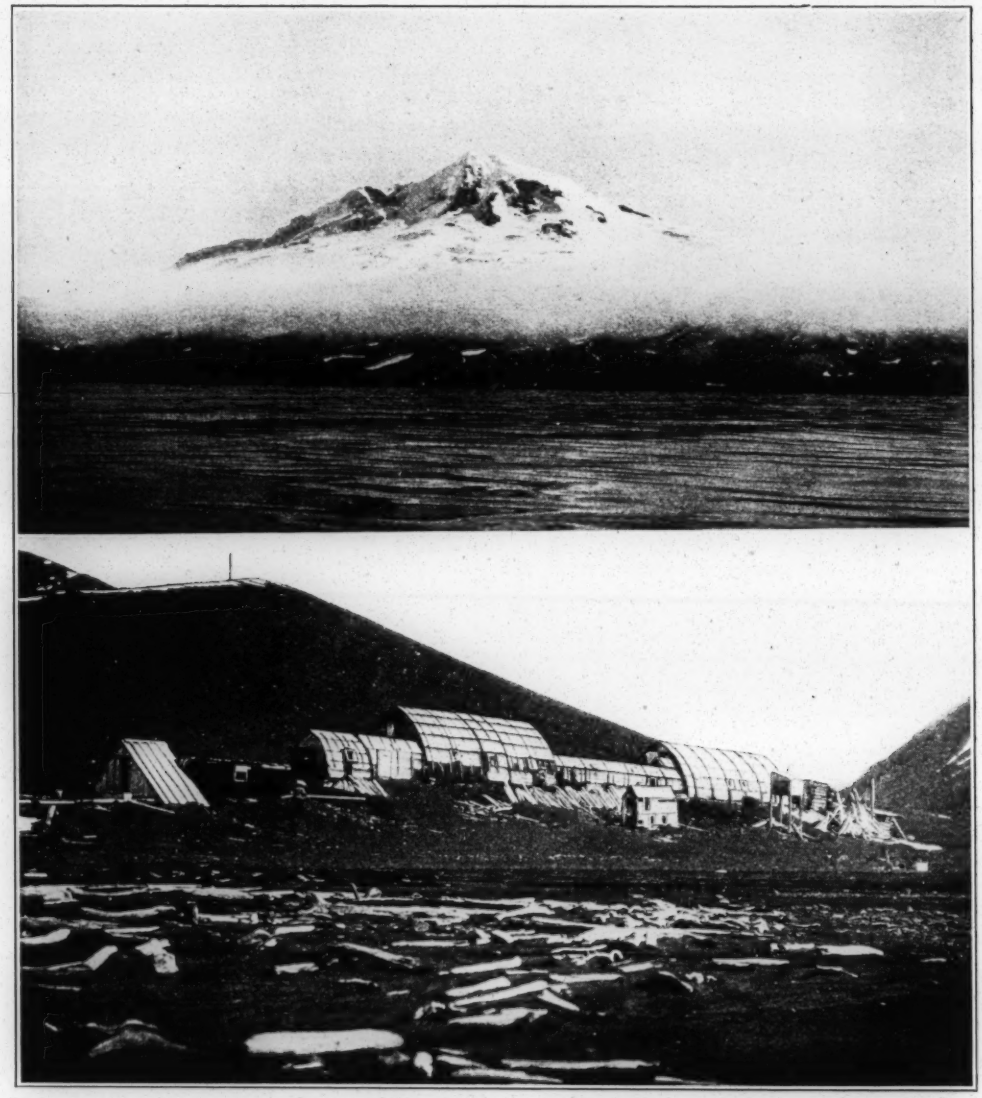
As the experience of former expeditions had shown it to be inadvisable to attempt making the Greenland coast before July, it was decided to spend the intervening time in a shooting trip after reindeer. While the metaphor is badly applied, I might say that in our loafing we "killed two birds with one stone,"



Photos from Col. Max Fleischman

Character of Ice upon which Polar Bears are Hunted

Hunting Aboard the *Laura*—the First Bear



Photos from Col. Max Fleischman

Isle of Jan Mayen Enveloped in Fog

Houses on Jan Mayen Built by Austrian Expedition in 1882

as we had fair sport, bagging twenty-seven deer, thus giving us a fine supply of fresh meat, much better and at less cost than it would have been possible to obtain at Tromsö.

Advent Bay, another of our stops, contains the only two permanent settlements in all Spitzbergen—two coal companies, operated by American and English companies respectively. The coal appears of very good quality, much like our American Pocahontas. We filled our bunkers at a cost, approximately, of one pound sterling per ton. Coal croppings are very abundant all over the island. Lamont, during his Arctic trips, and many of the whalers have made a practice of taking their ships' boats ashore and recoaling from practically surface coal.

Spitzbergen, providing so many specimens of birds, kept us working overtime keeping up with our skinning, preserving, etc.

At a dinner given to both parties on the night before sailing from Tromsö we had promised to try to spend the Fourth of July with the Wellman party, so it was with pleasurable anticipation that we next proceeded to the Wellman camp at Virgo Haven.

Patriotism ran high in our American hearts as we lifted our hats on Independence Day to the Stars and Stripes, which were waving, not only over our own boat, but over the houses already in a fair way of construction by the expedition. Glorious Fourth of July was celebrated in a manner befitting true sons and daughters of Uncle Sam in that far-off land in the North. Not having fireworks or firecrackers, Major Hersey, U. S. A., second in command of the expedition and representing the National Geographic Society, commanded a squad armed with pistols, guns, or anything else that would, in line with Major Hersey's orders, "make a noise!"

At a conference with our officers, composed of the captain, Jens Oyn; first mate, Kristien Petersen, and second mate, Daniel Johansen, all of whom were veterans of the Arctic, having served as officers in the *Nathorst*, the Baldwin-Ziegler, and Antarctic expeditions, it was decided to try to reach the coast of Greenland between 74° and 76° north. The experience of former expeditions had shown this to be the most advisable route and promised the best chances of success, no ship ever having penetrated to the coast south of 73° and only one north of 76°. The last ships making any authentic attempt that had reached Greenland at that latitude were those of a Swedish government expedition under Nathorst, in the year 1900, and one other expedition, which attempted to get in at Franz Josef Fjord in 1905. It failed in that attempt, but succeeded in reaching land north of Shannon Island.

Small pieces of drift ice were first met in latitude 70° 5′, longitude 4° west.

Thursday, July 12 (latitude 70° 5′, longitude 0.21′ west), we encountered large but rather scattered drifts of ice and also had some heavy snow flurries. The temperature ranged 1° R.

July 15 we found ourselves on the edge of the main ice pack guarding the coast of Greenland. The sea was rolling so heavily, however, that we were in danger of being driven into the ice. Our course at this time was east southeast ¼ and our position latitude 76° 19′ 5″, longitude 1° 54′ west, but we changed our course to southeast in an endeavor to find a lead through which to force our way into the pack toward Greenland.

On the 16th we were fortunate in finding an ice bay which sheltered us from the force of the waves, and, following this lead, we were enabled to advance into the pack, where we were comparatively sheltered. Gigantic swells, however, showing the ferocity of the storm outside, followed us for a distance of over fifty miles through the ice. Our position at this time was latitude 74° 59′, longitude 3° 56′ west.

In this locality we secured our first specimen of hooded seal (*Cystophora cristata*).

Heavy fogs were also met with. The rigging was covered with a coating of ice

and the temperature was zero C. On account of the fog and the ice, which piled up thickly around us, it became necessary to savagely buck it in order to force our passage through to reach a stretch of fairly open water and to prevent being hemmed in. In this butting match we undoubtedly got somewhat the worst of it, as all the the ice plates on the port bow of the ship were wrenched from the bolts and were partly separated from the wood. We made water at the rate of one foot per hour, but, putting a double force at the pumps and lightening her weight forward, we were able to raise the ship enough to have the carpenters repair the leak. This accident, however, hindered us in a great way from getting through some heavy packs upon nearing the coast. We might possibly have come nearer our goal had it not occurred.

On Thursday, July 19, we saw our first bear—a large she bear, followed by two cubs about a year and a half old. They being too large to capture, we had a spirited hunt after them and succeeded in killing all three. The meat was fairly palatable, although it was necessary to cut it into very thin strips and hammer it very thoroughly before broiling, in order to get the "blubbery" taste out of it. In addition to this precaution, I would advise that a plentiful admixture of onions be used in broiling fresh bear meat, and if the onions are strong enough and one has a penchant for onions, one won't really mind bear steak. It is the opinion of the writer and also of the ship surgeon, who was the taster of all new food, that young seal is a great deal more palatable than bear meat.

By the 20th we had reached far enough into the ice pack to find that there was no evidence of any mud-discolored floes which we had observed on the outskirts of the pack. The authorities—Nansen, Nordenskiold, and Nathorst—all agree that this ice is carried by the currents from the Siberian coast.

In this connection the following excerpt from our log of July 20 may be of more than passing interest:

"The floes increased in area, and the surfaces, which hitherto had almost without exception been flat, were covered with a tumbled mass of irregular blocks of snow and ice, heaped one upon another, rising to heights of twenty and sometimes even to fifty feet. Incessant motion from currents and winds and reciprocal ice pressure, as the ice drifted from the inexhaustible storehouse of the North, forced the 'ice tables' one over the other and caused this condition in the interior of the Polar pack which is typical of what Arctic explorers term the East Greenland ice."

The temperature was still below the freezing point, the ice upon the rigging being quite thick, and the crystal fringe of icicles hanging from the edge of the many floes presented a very beautiful sight. We later sighted a big male bear, quite the largest specimen brought down during the trip. This bear weighed eleven hundred pounds.

On the 23d we killed a new variety of seal, called the snad (*Phoca vitulinia*). Our position at this time was latitude 74° 6′, longitude 13° 47′ west.

On Thursday July 26, at a position of latitude 73° 20′, longitude 13° 39′ west, from the "crow's nest" we could see the mountains of the coast, from Cape "Hold with Hope" to Pendulum Island, a distance of seventy-five miles. The atmosphere was remarkably clear. At this time we also shot a fine specimen of the stor-kobbe (*Phoca barbata*), the largest variety of seal ever killed in the North and found only in the proximity of the coast. Each seal of this class yields a barrel of blubber.

From July 26 until August 20 we were either enveloped in dense fog or beset in front, behind, or to either side of us by tremendous ice floes, so that our efforts to reach Greenland were fruitless and our course was of necessity changed to all points of the compass. Excerpts from our log covering this period are as follows:

"Held up three days by fog; thick ice; following a lead in the ice; impassable

ice; changing course; following another lead; trying to break through ice; solid pack; trying to get in north; trying to get in south."

The above entries in our log practically cover all our notes of moment until the 20th of August. It was first hope; then, as chance appeared better, it was high hope of reaching Greenland; then an obstruction of ice stopped us; now more fog, followed by still larger floes of ice; then a heavy fog again. We made no better than two knots an hour, and when tied up to an ice floe we drifted away southeast a knot to a knot and a half an hour. All in all, it was discouragement and expectation, apprehension and renewed hope, varying constantly by the sight of bear or seal and further enlivened during the time of our imprisonment by the capture of three polar bears alive. At one time we succeeded in reaching a point within twenty-odd miles of the coast, near Shannon Island, and at another time we were within thirty miles of the coast, near Franz Josef Fjord, but an impenetrable pack of ice blocked our further progress.

We also noted a very interesting fact in the presence of some uncharted currents, believed by us to be the Gulf Stream, in the pack at latitude 72° 2′ 34″, longitude 14° 39′ 30″. Here the water was of quite a different color, a strata about two feet from the surface showing a light green, and repeated tests showed it to be one to one and one-half degrees warmer than the darker water below.

On August 2d, at a time when our chances for reaching the coast were fast ebbing away, we noticed that new ice was beginning to form between the floes during the night, reaching a thickness of half an inch. This formation was caused by the older ice melting, thus creating fresh water, which was frozen much more readily than salt water.

On the 20th of August, our coal running somewhat low and there appearing to be no chance of improvement in conditions, we decided to give up hope of reaching the coast, and in consequence set our course toward the Island of Jan Mayen, reaching there the 24th of August. Jan Mayen is a peculiar island, shaped like a spoon, 33 miles long and 23 miles wide at the broadest point and 1½ miles at the narrowest. Here we saw Berenberg Mountain, rising 6,300 feet sheer from the ice, a glacier on one side. This was probably one of the grandest sights it has ever been my pleasure to view or hope to view again. Berenberg has never been ascended, although attempted several times.

It was on this island that the Austrian government left an expedition for meteorological survey in 1882. All of the houses of this expedition are still standing and they are in a good state of preservation. Several of our party had the unique experience of tasting some American canned food left there by the original expedition, finding that nearly twenty-five years of time had worked not a particle of damage to its remarkably excellent condition.

As a balm to our injured feelings, because of our failure to reach Greenland, we learned that one month after we arrived in Tromsö, another ship—a small steamer—had tried for the Greenland coast for the purpose of walrus hunting and sealing. This ship had been so badly beset by the ice that she had been frozen up in one pocket and had not gotten out for six weeks. At that time the ship was in such close proximity to us that she heard our large siren signaling some members of our party in one of our small boats, who had gotten lost in the fog and were trying to find their way back to the ship. She tried to signal us, but she was "down wind" and we could not hear her.

It was certainly a source of satisfaction to find that where we had failed no other ship had been able to succeed, and I do not believe that it would have been possible for any ship to have reached the east coast of Greenland during the past season.

I had the intention of trying again this year, but the master of the *Laura* advised against it, stating that it was his

opinion that it would be better to wait another year, to see if the ice would again reach normal conditions. I have therefore acted upon his advice and have taken the *Laura* for the year 1908 to again make an attempt to go in at the Greenland coast and reach King William Land.

NEAREST THE POLE

The substance of an address to the National Geographic Society by Commander Robert E. Peary, U. S. Navy, describing his explorations in 1905–1906.

TO many persons, even of more than ordinary intelligence and wide reading, all Arctic work is an effort to reach the Pole.

To such the following facts will be of interest:

The incentive of the earliest northern voyages was commercial, the desire of the northern European nations to find a navigable northern route to the fabled wealth of the East.

When the impracticability of such a route was proven, the adventurous spirit of Anglo-Saxon and Teuton found in the mystery, the danger, the excitement, which crystallized under the name North Pole, a worthy antagonist for their fearless blood.

The results of northern efforts have been to add millions to the world's wealth, to discover some of the most important scientific propositions, and to develop some of the most splendid examples of manly courage and heroism that adorn the human record.

While these efforts have steadily circumscribed the area for new discoveries, they have also ripened the time for the final culmination of the work and the closing of the chapter.

Though the unknown area has steadily decreased, there is still ample room in the two or three million square miles of yet unknown area for startling surprises in geography and the natural sciences.

If any proof of this were needed, it is to be found in the directly contrary conditions found by the last Peary Arctic Club Expedition as compared with previous theories.

Many and perhaps all of my friends in this Society are aware that my last two Arctic expeditions have been financed by the Peary Arctic Club of New York, an organization composed of prominent men of New York, Brooklyn, Boston, and Philadelphia, with Morris K. Jesup as its President.

SCIENTIFIC RESULTS OF THE LAST EXPEDITION

The point of view of Mr Jesup and his associates in the club has been that Arctic work today should combine in intimate coördination two objects—the attainment of the Pole as a matter of record and national prestige, and the securing of all possible geographic, hydrographic, and other scientific information from the unknown regions about the Pole.

And since the government has not considered it advisable to undertake the work, the club gladly assumed it and shares the resulting honor and scientific material with the country and its museums.

What have been the results of this broad view?

To the popular mind has been given the satisfaction of feeling that the Stars and Stripes stand first, and that we possess a new world's record in a field in which the most enlightened nations of the world have been striving to emulate each other for three centuries.

To the geographer is given the satisfaction of having his horizon greatly widened in the western half of the polar basin; of being able to fill in annoying blanks upon his charts, and of looking

forward with anticipation to detailed explorations of new land discovered. Added to this also is the definite determination of the insularity of Greenland—the arctic problem which Sir Clements Markham, President of the Royal Geographical Society, characterized as being second in importance only to the attainment of the Pole itself.

To the zoölogist comes the discovery of the beautiful white Arctic reindeer, ranging to the very limit of the most northern lands, from Robeson Channel westward to the one hundredth meridian, and the bringing home of a complete series of some fifty skins of this species; the securing of the first specimens of the beautiful salmon trout of Lake Hazen, and a wider extension of the known range and abundance of the musk-ox, the Arctic hare, the fox, and the existence of animal life, as represented by seals, to the very highest latitude reached, within some two hundred miles of the Pole.

The oceanographer has for his share a new series of tidal observations, samples of the bottom obtained from soundings off more than half of the north Grant Land coast and down Smith Sound to Cape Alexander; a cross-section of the American outlet to the Polar Sea at its narrowest point, and new information in regard to the character and movements of the ice in the Central Polar Sea, resulting in the demolition of the paleocrystic sea theory.

For the glacialist there are the numerous inert or comatose glaciers of the North Grant Land coast which Aldrich took for snow-covered points of land, and the great glacial fringe of North Grant Land from Hecla westward, which when its features are known will appeal very strongly to investigators in this field.

To the geologist the discovery of fossils at Cape Hecla and at the most western point attained will be of interest.

For the ethnologist there is a new and complete census of the entire tribe of Whale Sound Eskimos for supplementing and comparison with previous censuses made during the past sixteen years; also additional photographs and measurements of these people, and an extension of the known range of their ancestors in the high northern latitudes.

To the practical explorer, particularly those who will yet wrest their final secrets from Arctic and Antarctic regions, the experience of the expedition, its freedom from sickness and death, especially scurvy, which has been the bane of so many expeditions, even up to some of the later Antarctic ones; its methods and equipment, its rapidity of travel, and its evolution of what I believe will be the type ship for Arctic and Antarctic work—able to fight or drift or sail equally well, as circumstances may demand—afford valuable lessons.

For the meteorologist have been obtained thermometric, barometric, and allied observations, carried on through what was undoubtedly a distinctly abnormal season.

In view of the above, and the fact that the work has defined the most northern land in the world, and fixed the northern limit of the world's largest island, was that work a useless expenditure of time, and effort, and money? Neither the club nor I think so. The money was theirs, the time and effort mine.

To the popular mind, and especially my enthusiastic friends of the press, the fact that the Stars and Stripes are in the lead is the one that appeals with instant strength; and I do not wonder at it, for they and you and I are aware that any record that represents a manly test of brains and body is a distinct asset to any nation; and they and you and I know that when the wires tell the world that the Stars and Stripes crown the North Pole, every one of us millions, from child to centenarian, from farm laborer and delver in the mines, up to the "first gentleman" in the land, will pause for a moment, from consideration of his own individual horizon and life interests, to feel prouder and better that he is an American and by proxy owns the top of the earth.

But the scientific results are the imme-

diate practical ones, and British and foreign commentators do not obscure or overlook them; and these results, together with the expedition's non-loss of a man, entire freedom from scurvy or sickness in any form, and return of the ship, have had their very friendly comments.

No better illustration of the practical way in which these business men of the Peary Arctic Club have approached the work and of our own practicality as a nation could be afforded than the quiet way in which the club's expeditions have set forth, and particularly the recent return of the *Roosevelt* as compared with the return of Nansen's *Fram*.

The latter came into her home port with salvos of artillery, a harbor covered with boats, and its shores lined with a cheering multitude, congratulations from King and Parliament; and Nansen today is Norwegian Ambassador to Great Britain.

The *Roosevelt* steamed into New York harbor, lay at anchor for forty-eight hours, and went to her shipyard for repairs without a ripple.

Do not for a moment get the erroneous impression that I speak of this in a spirit of criticism or complaint; on the contrary, I understand the situation fully and am entirely in accord with it.

We are too big to need to assert our existence to the other members of the family of nations, and things which to a smaller country might be the event of its life, to us are only one of several items in the day's work.

THE JOURNEY NORTH

In July, 1905, Commander Peary left New York in the *Roosevelt*, a powerful steamer with auxiliary sailing power, the first vessel to be built in America for Arctic work. He sailed north across the Gulf of Saint Lawrence, along the coast of Labrador, through Baffin's Bay to Smith Sound, on the northwest coast of Greenland. To that point it was summer sailing and child's play. Then the real work began. For the next eighteen days it was a continuous fight, through varying vicissitudes of open water and packed ice, 350 miles, to Point Sheridan, on the north coast of Grant Land, where the winter camp was made.

Arctic exploration expeditions must be made in two seasons. Through one summer the explorer must drive his ship as far north as possible, and then establish his base near to land before the six months' night sets in, in October. From then until the last few days of February, when the first glimmerings of the Arctic dawn are seen, the explorer must live inert in a darkness that is relieved only once a month by the pale light of the moon. Then, when light comes for an hour or less a day, he must start north by sledge.

This Peary did. Four parties set north, each with its sledges and dogs and Eskimo drivers and hunters. These Eskimos, with their dogs, the Commander said, are the factors that make the search for the Pole feasible. Two days' march brought Peary's party to a lead—a rift in the ice pack where open water prevents further progress. For six days the party camped at this lead, until a thinly forming shell of ice gave them a precarious passage to the northern side. Only fairly started north from here, they were entirely cut off from the three supporting parties by a blizzard which delayed them five days longer. From then on the diminishing amount of provisions and the serious delays demanded that one mad rush be made to the north.

The Commander's lecture was illustrated with excellent stereopticon views, which gave the audience a true idea of actual conditions in the far north. Great hummocks of jagged ice, precipitous pressure ridges and obstacles that would seem insurmountable, stood constantly in the way of progress. But they pressed on at a heart-breaking gait until on April 21 Commander Peary was forced to give the word to turn back. He had set a new record, but the Pole, on the reaching of which he had so firmly counted, was

still 200 miles away—a distance he could have covered but for the sad delays caused by an open season and storms.

"At noon of April 21st we had reached a point which my observations showed to be in 87 degrees and 6 minutes north latitude, the nearest approach yet made to the Pole. It is perhaps an interesting illustration of the incongruity of human nature that at this time, when it might be thought that my feelings should be those of exultation only, they were as a matter of fact just the reverse. While I endeavored to be as thankful as possible for what I had accomplished, still the mere fact of breaking the record fell so far short of the splendid jewel to secure which I was straining my life out, that my feelings were of the intensest disappointment; and this, combined perhaps with the physical exhaustion resulting from our heart-breaking pace on half rations, gave me the deepest fit of the blues."

Turning south from his most northern camp, he traveled but a few days when, near the open water which had first intercepted him, he came across another lead from one-half to two miles wide. After camping two days and consuming almost all the few provisions left, pieced out by meat of weakest dogs, slaughtered because of dire necessity, a thin strip of ice was discovered across the lead. Over this, in skirmish line, each man fifty feet from his neighbor, they dashed, with the thin ice undulating under their feet and the danger of any moment sinking into the black waters of the Arctic sea constantly before them. No sooner had they lander on the firm ice of the southern side than the newly formed ice on the lead parted.

Emaciated men and starving dogs—only a few of the latter left—at last struck the coast of Greenland, with which Peary was familiar through previous trips. Here several Arctic hare which the Eskimos killed revived them slightly. Started on their first day's trip toward the west, they intercepted fresh tracks—three dogs and four men abreast, staggering as they went. Two runners sent east along this track returned in a day with Clark and three Eskimos, found as they had sunk down in exhaustion and despair to die a lingering and awful death.

For two days, with only short intervals of sleep, the party ate off the flesh of the muskox, seven of which Peary killed soon after reaching land. Then westward they went, until about June 1 the ship was reached.

FARTHEST WEST

Hardly recovered from the dash to the Pole, Peary started west along the north coast of Grant Land with a view to establishing some unknown coast lines. This journey took them west to the most northerly point of Grant Land, where a cairn was built and Peary's record and a strip of the American flag was deposited. This cairn is one of three such repositories which form a triangle of points established by Peary. One is on the most northerly point of Grant Land, and thus of the North American Archipelago; another is on the most northerly point of Greenland, and the third on the most northerly point in the world ever visited by man.

These three points, together with the explorations made by Nansen and Nordenskjold, make a fair investigation of the territory on the American and European sides of the Pole. The district lying north of eastern Siberia is the great unknown. What Peary terms the North American Archipelago is well explored as to coast lines, and but one strip remains unmapped on the northeast coast of Greenland. The Commander is absolutely confident that the Pole can be reached, this remaining strip explored, and perhaps a trip into the unknown toward Siberia made in one more journey to the north.

On return from the trip to the west Peary found that while his men had endeavored to change the position of the *Roosevelt*, she had become jammed in the ice and her rudder and two blades of

her propeller torn away. With speed reduced by a damaged propeller and a temporarily rigged and extremely crude rudder, the *Roosevelt* started homeward, landing at Cape Breton, Newfoundland, November 23, 1906.

The stereopticon views with which the lecture was illustrated were remarkably good, and were a great factor in making the story clear and in elucidating the situation about the Pole. Pictures of the Eskimos were especially interesting, showing women with animation in their faces—a quality that seems to be absolutely lacking in the average pictures of these people. Laughing babies, dressed exactly as are their fathers and mothers, were shown, and one remarkable type of feminine beauty, the daughter of a chief with whom Peary had become acquainted during former trips to the North. Pictures of the animals which are found in the Arctic regions showed strange-looking musk-oxen, a huge polar bear, large white Arctic hare, and some beautiful specimens of the snow-white Arctic deer.

IMPORTANT LESSONS TAUGHT BY THE LAST EXPEDITION

The drift of the polar ice flow is constantly to the eastward. On the side of the Pole adjacent to eastern Siberia and Alaska is a great field of ice, whence the chilled air flows east to equalize the barometric pressure in the north Atlantic, where from the perennially open waters the comparatively warm air rises. This wind, blowing with a constantly varying intensity, drives the packed ice eastward, and the explorer traveling toward the Pole is as a man attempting to row across a river.

This drift is that on which Peary counts for success on the next dash to the Pole, but it is also that which carried him from his destination on his last dash.

Had the winter of 1906 been a hard one and the ice pack closed in the spring, it is the Commander's firm conviction that he would not have had to turn back when within 200 miles of the Pole, and it is his belief that, taking advantage of the experience gained on this last trip, not only can the Pole be reached when the next dash is made from the American side, but that the one remaining unexplored strip of Greenland coast can be mapped at the same time. The sledge parties should start in the next trip from a point much farther west than did his sledges, and should aim not directly at the Pole, but toward a point west of it, so that the drifting ice will carry the party to it.

It is not severely low temperature that is the obstacle to Arctic exploration. A sound man, properly cared for and properly clothed, should not feel that as much as we in the temperate zone do the sudden changes of temperature to which we are subject. It is the long winter night—a nerve-wearing experience, one which has driven men insane—and the necessity of carrying all provisions which make Arctic exploration perilous.

"The discovery not only of the North, but of the South Pole as well, is not only our privilege, but our duty and destiny, as much as the building of the Panama Canal and the control of the Pacific.

The canal and the control of the Pacific mean wealth, commercial supremacy, and unassailable power, but the discovery of the Poles spells just as strongly as the others, *national prestige*, with the moral strength that comes from the feeling that not even century-defying problems can withstand us.

Accept my statement, the attainment of the North and South Poles (the opposite ends of the earth's axis) by American expeditions would be worth to this country many times the few thousands needed, just for the closer bond, the deeper patriotism resulting, when every one of the hundred millions of us could say, "The Stars and Stripes float at both ends of the earth's axis and the whole world turns about them."

Mere sentiment, perhaps; but sentiment has won battles and overthrown empires, and makes the difference between Satan and Saint."

PEARY'S TWENTY YEARS SERVICE IN THE ARCTICS*

The following article is from "Handbook of Arctic Discoveries," by Major General A. W. Greely, U. S. A., and is copyrighted by the publishers of the volume, Messrs Little, Brown & Co., of Boston.

THE most brilliant work on the inland ice is that of Mr R. E. Peary, U. S. Navy, who, in 1886, with a Dane, Maigaard, reached a point near Disco, some 50 miles from the sea.

Renewing his explorations in the *Kite*, Peary landed at McCormick Bay August, 1891, and most courageously persisted in his work, although his leg was broken while crossing Melville Bay. A house was erected, but autumnal efforts to establish a cache at Humboldt Glacier were futile. In 1892 Peary, able to travel, explored Inglefield Gulf in April, and then turned to the accumulation of stores at the edge of the inland ice, some 15 miles distant. His main journey commenced May 14, when the true inland ice was reached with 16 dogs and 4 sledges. He crossed the divide of 5,000 feet elevation between Whale Sound and Kane Sea, and at a point 130 miles from McCormick Bay sent back Cook, who had supported him thus far, with a man and two dog sledges. Peary proceeded with Astrup, and looked down into Petermann Fjord May 31; but crevasses here and at Saint George Fjord obliged them to make a detour to the east and southeast. Finally, on May 26, they reached the north edge of the inland ice, near 82° N., whence they looked to the north on the brown-red, comparatively ice-free land discovered by Lockwood in 1882. The fjord, into which they could not descend, doubtless connects with Nordenskjold Inlet of Lockwood, 1882, and Peary supports Greely's opinion of 1884, that Greenland here ends, and that the discovery of Lockwood is an entirely new land.

Unable to go farther north, Peary turned to the southeast to make the east coast of Greenland, and, following the edge of the ice-cap, reached Independence Bay July 4, 1892, and climbed Navy Cliff, 4,000 feet high, 81° 37′ N., 34 W. To the north was an ice-free land extending to the east some 50 miles, to 25° W. longitude; to the east and southeast the East Greenland Ocean was covered by disintegrating sea ice. Five musk-oxen were killed, which relieved anxiety for dog food on the homeward trip. The return journey to McCormick Bay, about 450 miles distant, was made almost in a straight line, the ice-divide proving to be 8,000 feet above the sea.

Believing that even more extended discoveries could be made in northeast Greenland by again crossing its ice-cap, Peary, raising funds for the purpose by a series of lectures, established a station at Bowdoin Bay in 1893. With 8 men, 12 sledges, and 92 dogs, he ascended the inland ice March 6, 1894, and in 13 days advanced 134 miles, to an elevation of 5,500 feet. Storm-bound by violent gales and extreme cold, Peary saw his dogs die and his men frosted, so that a general advance was impossible. Caching all surplus stores, principally pemmican, he sent back the disabled force, and with indomitable but fruitless energy marched on with three selected men. In 14 days he traveled only 85 miles, under extremely adverse conditions, being finally obliged to return with dying dogs and failing men. Abandoning sledges and caching pemmican, he reached Bowdoin Bay on April 15 with only 26 living dogs of the original 92.

Later his chief support, Astrup, sledged to Melville Bay and charted a considerable portion of its indefinitely located northeastern shore.

PEARY'S SECOND CROSSING OF GREENLAND

When the visiting steamer *Falcon* arrived, in August, 1894, prudence de-

manded that the entire party should return to the United States. Food and fuel were insufficient, more extended explorations were improbable, and arrangements for a visiting ship in 1895 were merely problematical. With determination and courage bordering on rashness, Peary decided to winter at Bowdoin Bay with two volunteers, Lee and Henson.

Utilizing throughout the winter the entire resources of the region and gaining Eskimo recruits, Peary accumulated supplies on the inland ice, and started northward April 2, 1895, with his 2 men, 4 Eskimo, and 63 dogs, drawing 6 sledges. On the third march an Eskimo deserted with his outfit; but Peary, undiscouraged, pushed on. Most unfortunately, the heavy snows had obliterated all landmarks, and the expected mainstay—the pemmican cache—could not be found. Failure now impended, but, sending back his Eskimo allies, from this camp, 134 miles inland and 5,500 feet above the sea, Peary continued his journey, 41 dogs dragging the 3 sledges. The temperatures ran from −10° to −43°; the elevation increased to 8,000 feet; travel was bad; sledges broke down; Lee was frosted; dogs died; but Peary persisted on his hopeless journey. Finally, with but 11 exhausted dogs, 1 sledge, and a disabled man, Peary, May 8, left Lee camped 16 miles from the coast, and with Henson sought game ahead unsuccessfully for 4 days. Scant walrus meat reserved could barely feed their dogs during the home journey, but with desperate courage they advanced their camp to Independence Bay, Peary's farthest in 1892. The descent to the sea practically destroyed their sledging equipment; but 10 musk-oxen restored vigor to men and dogs. Further game failing, with 9 dogs and food for 17 days, they turned homeward in a frantic race against starvation. Twenty-five forced marches, in which necessarily everything but food was abandoned, brought them, in desperate condition, June 25, to Bowdoin Bay, whence by the steamer *Kite* they reached Newfoundland September 21, 1895.

If Peary's advance beyond his buried cache was one of the rashest of Arctic journeys, yet the courage, fertility of resource, and physical endurance displayed by him and his companions place their efforts among the most notable in Arctic sledging. Other parties under less desperate circumstances have met with mortality, and only escaped total fatality by relief from their reserve party, which adjunct to Arctic exploration experience indicates to be essential to safety.

The two crossings of Greenland by Peary must be classed among the most brilliant geographic feats of late years, his journeys far surpassing in extent that of his ice-cap predecessor, Nansen, who crossed Greenland more than 1,000 miles to the south.

The physical collections and observations enlarge the previously existing wealth of scientific data of western Greenland. Doubtless the most important scientific results derived from the Peary voyages are those connected with Professor Chamberlin's examination of the glaciers of Inglefield Gulf, in which survey photography was freely used and to great advantage. Geology must profit from this study of glaciers presenting such varied forms, especially as the unusually free exposure of structure facilitated examination of vertical faces, convoluted and laminated formations.

The most attractive additions to knowledge are the ethnological studies of the Cape York Eskimo, which in 1895 numbered 253—140 males and 113 females. These studies, made by Peary, Lee, and Dr F. A. Cook, appear in a memoir forming an appendix to Peary's "Northward Over the Great Ice" (2 vols., New York, 1898), though very interesting details are scattered through the general narrative.

In a summer voyage of 1896 Peary obtained and brought from the vicinity of Bushman Island, east of Cape York, two large meteorites. The following year he was fortunate enough to be able to obtain and bring to New York city

the largest known meteorite of the world. It is an irregular mass, with maximum measurements of 6, 7.6, and 11.2 feet and weighs nearly 100 tons.

HIS FIRST CAMPAIGN TO REACH THE NORTH POLE

In June, 1898, he left New York for a four years' expedition against the Pole. His ship, the *Windward,* unable to force its way into Kennedy Channel, wintered near Cape Hawkes. In September of that autumn Peary determined the continuity of Ellesmere and Grinnell Lands. Through the utilization of the Etah Eskimo he planned to make Fort Conger his base for polar work. Adopting the unprecedented and dangerous policy of winter sledging, his trip to Conger in December badly crippled him and nearly cost his life, his feet being very badly frozen. Eight toes were amputated March 13, on his return to the *Windward,* yet he took the field in a few weeks. In July, crossing Ellesmere Land and passing over inland ice at an elevation of 7,000 feet, he discovered a fjord (Cannon Bay) running 50 miles to the northwest, with the north shore of Greely Fjord in the background, and probably Heiberg Land.

The *Windward* returning to the United States, Peary wintered (1899-1900) at Etah, from which he made his first northern effort. Leaving Etah in March, he started from Fort Conger April 11, taking the Greenland trail of Lockwood and Brainard. May 8 Peary passed Lockwood's farthest, 83° 24′ N., and reached the most northern land in about 83° 35′ N. Striking northward over the polar pack, Peary found "frightful going, fragments of old floes, ridges of heavy ice thrown up to heights of 25 to 50 feet, crevasses and holes masked by snow, the whole intersected by narrow leads of open water."

Finding that the pack was disintegrated, he turned back in May, 1900, from 83° 54′ N., nothing but ice being visible to the north from the summit of a floeberg 50 feet high. Following the coast of Hazen Land southeast to 82° 45′ N., 24° W., he turned back about 125 miles from Independence Bay.

Though the North Pole was not reached, yet the northern end of the Greenland Archipelago had been rounded and its eastern coast determined to Cape Independence. This journey practically completes the outlines of Greenland.

It is extremely interesting to learn that this northernmost land of the world is replete with animal and vegetable life. Bears, wolves, hares, and musk-oxen make it their habitat. Of the extreme northeastern coast Peary says: "It is inhabited by a fauna practically the same as that of other Arctic lands several hundred miles farther south."

The discoveries of Peary and Sverdrup confirm the opinion advanced by Greely, that the Eskimo, musk-ox, and wolf have reached east Greenland from the Parry Archipelago, via Greely Fjord, Lake Hazen, and the ice-free regions of extreme northern Greenland. Traces of Eskimo life cover the greater part of the route, and Peary believes that summer would disclose others.

Returning south, Peary fixed his winter quarters at Fort Conger and attempted the Cape Hecla route in 1901, but the northern advance in April was abandoned at Lincoln Bay. His base was transferred the next winter to Payer Harbor.

Peary was not dismayed, and starting in February, 1902, by twelve wonderful marches reached Conger. Leaving, February 24, 1902, with nine sledges, he was stormbound a day at Lincoln Bay. In rounding Cape Henry he struck the worst ice-foot he ever encountered. By the slipping of a sledge two men nearly lost their lives, they dangling over the crest of an ice-pack precipice some 50 feet in height. The sledges had to pass a shelf of ice less than a yard wide, with the precipitous face of a cliff on one side, and on the other sea-floes 75 feet below.

Peary, having already traveled 400 miles in a month, with temperature ranging from −38° to −57°, left Cape Hecla April 6 with seven men and six dog

sledges. The disintegrating polar pack was constantly shifting, while its alternations of rubble, open water, young ice, and pressure ridges made travel slow and arduous in the extreme.

Strong gales not only kept them stormbound, but still further broke up the pack. Leads became frequent and wider, old floes broke up, and the moving ice-pack, crushing together with a sound of heavy surf, made the situation most dangerous. One lead was closed up by a huge pressure-ridge about 90 feet high. At the farthest, observations gave 84° 17′ N., 70° W.; magnetic variation, 99° W.

This notable northing, made from a base 300 miles south of the *Alert*, over Markham's route, exceeded his latitude by 57 miles. Peary surpassed the northing of Lockwood on Hazen Land by 53 miles, and so attained the highest latitude reached in the Western Hemisphere.

MAP OF THE NORTH POLAR REGIONS

THE Map of the North Polar Regions which is published as a supplement to this number was prepared by the Editor of the NATIONAL GEOGRAPHIC MAGAZINE to accompany the Scientific Report of the Zeigler Polar Expedition of 1903-1905. Through the courtesy of Mr W. S. Champ, executor for the late Mr Zeigler, and of Mr Anthony Fiala, leader of the expedition, the plates of the map were placed at the disposal of the National Geographic Society.

It has been the Editor's object to make a chart that would be historical as well as geographical. For instance, with the Franz Josef Land Insert is given a list of the principal explorers of the archipelago, while the more notable expeditions to the Smith Sound Region are printed with the Smith Sound Insert.

Peary's principal journeys are listed, the International Circumpolar stations of 1881-1883 are given, and the routes of the principal polar explorers shown. The coloring of the coast-line is intended to show as closely as possible the nationality of the first explorer.

The conjectural drift is also given of a cask which was dropped overboard from a whaler near Point Barrow in the summer of 1899 and picked up on the north coast of Iceland six years later. This cask was one of a large number which were specially constructed by the Geographical Society of Philadelphia on plans of Admiral George W. Melville, U. S. Navy, and Mr Henry G. Bryant, of Philadelphia, and which were placed on ice-floes north of Bering Strait in 1899-1901. Only this one cask has been recovered on the other side of the Polar Ocean. In its remarkable voyage it probably drifted 4,000 miles.

The probable drift of the alleged relics of the *Jeanette*, 1881-1884, is also shown. These relics, it will be remembered, were several broken biscuit boxes and lists of stores, said to have been written in the handwriting of Lieutenant De Long, and abandoned when the *Jeanette* sunk, in 1881. They were washed ashore on the southeast coast of Greenland three years later, where they were found by some Eskimo, who turned them over to a Danish officer.

Another interesting illustration of the powerful currents in the polar area is given by the track of the *Hansa's* crew in 1869-1870. The *Hansa* was one of the two vessels of the second German North Polar Expedition of 1869. The ship was crushed in the ice off Liverpool coast, and the crew compelled to camp on the ice-floe. They remained for 200 days, living on an iceberg, which meanwhile drifted 1,000 miles along the east coast of Greenland. They had managed to preserve a lifeboat, and when spring returned, after their terrible experience of the winter, spent in total darkness and drifting to and fro at the mercy of the

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storm, they took to the boat and reached a haven.

Another remarkable drift was the experience of part of the crew of the *Polaris* in 1870. The *Polaris* had been pushed into an impassable ice-pack, where she was anchored to a floe.

"For two months the ship drifted slowly southward, when a violent gale disrupted the pack and nearly destroyed her. Part of the terror-stricken crew, escaping in the darkness to the ice-pack, experienced the horrors of a mid-winter ice-drift, whose appalling dangers and bitter privations can scarcely be appreciated. Five months later, after a drift of 1,300 miles, the despairing party were picked up by the *Tigress,* off Labrador, April 30, 1873, not only unreduced in numbers, but with a girl baby born to the Eskimo, Hannah."

The drift of the *Fram,* 1893-1896, is so well remembered that it is not necessary to describe it again.

It is also interesting to note the long distance Peary drifted on his last polar dash, while waiting for a lead to close and for a storm to abate. On his next campaign he will take advantage of this drift by starting west of Cape Columbia and by aiming for a point considerably away from the Pole. (See page 450.)

The many expeditions setting forth from Greenland and Franz Josef Land have nearly completed the exploration of the eastern half of the polar area, but the map shows a vast untraversed region north of Alaska and Bering Strait.

In the preparation of the map the Editor has received much assistance from the expert staff of the Mathews Northup Co., who also drafted, engraved, and printed it. The insert of the Smith Sound region is largely based on Peary's latest map, and that of Franz Josef Land on the surveys and revisions of the Ziegler Expedition.

A limited number of polar maps have been printed on linen and may be obtained from the National Geographic Society at 50 cents each.

The reader who is interested in Arctic exploration and wishes a concise narrative of the different expeditions, will find the "Hand Book of Arctic Discoveries," by Major General A. W. Greely, U. S. Army, an indispensable and welcome guide. A second edition of this volume has just been published by Messrs Little, Brown & Company, of Boston. General Greely gives a vivid summary of Arctic history, condensed from about 70,000 pages of original narrative.

NO MAN'S LAND—SPITZBERGEN

THE discovery of Spitzbergen excited little interest at the time, but it was prominently brought to the attention of the world by the first voyage of Henry Hudson, in 1607, to discover a passage by the North Pole to China and Japan.

Hudson's voyage was of vast industrial and commercial importance, for his discovery and reports of the vast number of walruses and whales that frequented the seas gave rise to the Spitzbergen whale fishery. Enterprising Holland sent its ships in 1613, bringing in its train later whalers from Bremen, France, and other maritime centers.

The whale fishery, as the most important of Arctic industries—from which Holland alone drew from the Spitzbergen seas in 110 years, 1679-1778, products valued at about ninety millions of dollars—merits brief attention.

Grad writes: "The Dutch sailors saw in Spitzbergen waters great whales in immense numbers, whose catch would be a source of apparently inexhaustible riches. For two centuries fleets of whalers frequented the seas. The rush to the gold-bearing places of California and the mines of Australia afford in our day the only examples at all comparable to the host of men attracted by the northern fishery."

During the most profitable period of the Dutch fishery, 1620-1635, it is within bounds to say that over 300 Dutch ships and more than 15,000 men annually visited Spitzbergen; more than 18,000 men were on the coast in one summer, says Lamont. It is definitely known that 188 whalers congregated at one anchorage in 1689, and in 1680 the Dutch sent out 260 ships and about 14,000 men, who made a catch at nearly a million and a quarter of dollars.

In the year 1620 whales frequented the bays and immediate coast of Spitzbergen in such numbers that the fishers were embarrassed to transport homeward the blubber and other products. These conditions led to the summer colonization of Spitzbergen (and Jan Mayen), where establishments for trying-out, cooperage, etc., were erected, as the most economical method of pursuing the industry. They were occupied only in summer, although the experiences of Pelham and other English sailors, who involuntarily wintered in Spitzbergen in 1630-1631, led to an attempt to establish a Dutch colony. The party of 1633-1634 wintered successfully, but that of the following year perished, and so ended the experiment.

The most remarkable of these establishments was at Amsterdam Island, where on a broad plain grew up the astonishing village of Smeerenberg. Here, nearly within ten degrees of the North Pole, 79° 50′ N., for a score of years, prevailed an amount of comfort and prosperity that can scarcely be credited by the visitor of today. Several hundred ships, with more than 10,000 men, visited it annually. These consisted not alone of the whalers and land laborers, but of the camp-followers who always frequent centers of great and rapid productivity.

In the train of the whalers followed merchant vessels, loaded with wine, brandy, tobacco, and edibles unknown in the plain fare of the hardy fishers. Shops were opened, drinking booths erected, wooden (and even brick) tile-covered houses constructed for the laborers or visiting whalemen. Even bakeries were constructed, and, as in Holland, the sound of the baker's horn, announcing hot, fresh bread, drew crowds of eager purchasers. If report errs not, even the Dutch frau of 1630 was sufficiently enterprising to visit Smeerenberg.

The shore fisheries soon failed (about 1640) and, the Dutch being driven to the remote and open seas, Smeerenberg fell into decadence; the furnaces were demolished, the copper caldrons removed, and the tools and utensils of the cooper and whaler disappeared; only the polar bear remained to guard the ruins of the famous Spitzbergen fair.

But human interest in Smeerenberg did not pass away with its vanishing habitations, for on the shores of that bay rest the last mortal remains of a thousand stalwart fishers, who closed their lives of toil and struggle in view of the icy seas that had often witnessed their triumphs over the mighty leviathan of the deep. Storm-stayed and ice-beset no longer, their dust awaits the change and fate ordained by God's eternal laws.

Spitzbergen of recent years has been claiming greater attention. A coal deposit of considerable value has been found on the island, and it has become a favorite resort for hunters and for excursionists. It is known as "No Man's Land," as it belongs to no country, Norway and Sweden being unable to agree as to its possession. Last year about half a million dollars' worth of oil, furs, and eiderdown were obtained from the island.

Some authority ought soon to take possession of the archipelago, for the game—such as reindeer, polar bears, ptarmigan, geese, ducks, and other birds, formerly so plentiful—is being wantonly exterminated. A party of tourists last summer killed more than 100 reindeer, leaving the carcasses where they fell and taking with them only a few of the finest heads and antlers. Eider-duck nests are robbed of eggs, which Norway on her northern coasts and Denmark in Greenland protect by law.

Danes Island, on the northwest coast

of Spitzbergen, was Andrée's starting point in 1897, and here also Walter Wellman has established his headquarters.

ANDRÉE'S FATAL ATTEMPT

The most daring of all schemes of polar exploration was that urged and undertaken by S. A. Andrée, of Sweden. A member of the Swedish International Polar Expedition of 1882-1883 and an aëronaut of some experience, Andrée succeeded in commanding for his plan the active support of Oscar, King of Sweden, M. Alfred Nobel, and Baron Oscar Dickson. In 1896 his party passed several weeks at Danes Island, Spitzbergen, where they erected a balloon-house and failed to start, owing to adverse winds. Observations of the escaping gas showed quite conclusively that the flotation life of the balloon had been overestimated. On his return Andrée had the balloon enlarged and improved, so that its impermeability and flotative powers were increased. With the gunboat *Svensksund* and tender *Virgo,* Andrée revisited Danes Island in June, 1897. The balloon-house had withstood the winter storms, and after the installation of the balloon all possible means were adopted to reduce to a minimum its daily loss of gas by permeation through the envelope. The plan looked to the flotation of the balloon some 800 feet above the sea by means of three attached heavy guide-ropes, each 900 feet long, to which in turn were fastened eight ballast lines, 250 feet long, with which it was expected by shifting the position of the guide-ropes to change the direction of the balloon. On July 6 a violent gale barely escaped wrecking both house and balloon. Finally, on July 11, the wind was favorable in strength and direction and everything was ready. The balloon, named *Ornen* (The Eagle), had its load of about five tons of food, ballast, freight, and men, and from measurements of escaping gas had a flotation life of about 30 days.

Acompanying Andrée were M. Strindberg and M. Fraenkel. At 2:30 p. m. the lines were cut, and the balloon ascended about 600 feet. Suddenly it descended to the surface of the sea, possibly owing to an entanglement of the guide-ropes, and then rose again as the ropes were cut or broken and ballast thrown out. The wind carried the balloon across the mountainous island of Vogelsang, making it necessary to rise to some 1,500 feet, whence it passed out of sight in an hour, below the northeast horizon. As the balloon had at its best a flotation life of 30 days, it is obvious that the report is erroneous of its appearance in Siberia 65 days later.

Three message-buoys have been found, all dropped by Andrée on July 11, the date of his departure, which furnish brief news of the course of the daring aëronaut. The latest was dated 10 p. m., at which time the balloon was in 82° N., 25° E. All were well, the weather fine, the balloon at 820 feet altitude, the direction towards N. 45° E., and the ice field below rugged. Beyond these buoys there have been found no traces, despite repeated search in various Arctic regions.

WELLMAN'S EXPEDITION

Spitzbergen has also been selected as the starting point of Walter Wellman's expedition to the Pole in an airship. On Danes Island, on the northeast coast of Greenland, he built last year an enormous shed in which to inflate his balloon, and established a large plant. He returned to Spitzbergen in June, taking his dirigible balloon, which has been considerably enlarged and equipped with more powerful motors than previously planned. The steel car suspended to the balloon has a promenade deck 50 feet long, and space to carry about 15 dogs to drag the sledges in case the party are obliged to abandon the airship. Mr Wellman believes the airship can be kept in the air 20 or 25 days. Spitzbergen is 600 miles from the Pole, and the trip there and back he estimates will take about 10 days. It will be remembered that Mr Wellman last year asked the National Geographic Society to

appoint a representative on the expedition to take charge of the scientific work. Major Henry E. Hersey, of the Rough Riders and the U. S. Weather Bureau, was so delegated by the Society and has gone north again in this capacity. Major Hersey, on his return from Spitzbergen in the fall of 1906, sailed with Lieutenant Lahm in the International balloon race from Paris, and it was his knowledge of meteorology that won the race for the Americans.

ARCTIC EXPEDITIONS COMMANDED BY AMERICANS*

EXPEDITIONS for Arctic exploration by Americans cover only about half a century, during which period they have both illustrated the resourceful courage of Americans and produced results comparable with those of European voyagers.

The following list of American expeditions is presented as of interest to our readers, and with the hope that its omissions and imperfections may be supplemented, so that the NATIONAL GEOGRAPHIC MAGAZINE may ultimately present a complete list of American voyages for Arctic exploration. The arrangement is generally, though not strictly, chronological rather than topical, although American effort has been especially active in the waterways to the west of Greenland.

The earliest expedition, extending aid in the search for Captain John Franklin, in 1851–1852, was the squadron commanded by Lieut. E. J. De Haven, U. S. Navy, its most northern work being in Wellington Channel, about 78° N.

Then followed the expedition of Elisha Kent Kane, nominally in search of Franklin, in 1853–1855, via Smith Sound, where, in 1854, Cape Constitution, in latitude 80° 35′ N., was attained.

Commodore John Rodgers, U. S. Navy, commanded the first American expedition to pass Bering Strait, reaching, in 1855, Herald Island, 71° 18′ N., 175° W.

In 1860–1861 Isaac L. Hayes reached, on the east coast of Grinnell Land, an indeterminate point, which has been placed as Cape Joseph Goode, in 80° 11′ N. Hayes and W. Bradford, in a summer voyage in 1869, reached with the *Panther* the vicinity of Cape York, Greenland.

From 1860 to 1862 and 1864 to 1869 Charles F. Hall explored the countries northwest of Cumberland Gulf. He reached, in 1861, Frobisher Bay; 1865, Boothia, in 68° N., 89° W.; 1867, Igloolik, Hecla Strait, 69° 22′ N.; in 1868, Fury Strait, about 70° N., and in 1869, Tod Island, off King William Land. In the Arctic Expedition of 1870–72, Hall reached, in the Polar Sea northwest of Greenland, 82° 11′ N., in 1870, and 82° 09′ N. on land in 1871. To effect the relief of Hall's Expedition, the *Tigress*, 1873, under Commander, afterwards Admiral, Braine, U. S. Navy, reached Littleton Islands, in 78° N.

The Franklin Search Expedition of Lieut. F. Schwatka, U. S. Army, and William H. Gilder, 1877–1879, thoroughly explored King William Land, reaching about 69° N.

The International Polar Expedition, under Lieutenant, now General, P. H. Ray, U. S. Army, took station, in 1881–1883, at Point Barrow, Alaska, in 71° 24′ N., 156° W.

Of the two Howgate expeditions, one, in the *Florence*, under Mr Sherman, a meteorologist, visited Cumberland Gulf in 1877, while the other, in the *Gulnare*, commanded by Lieut. G. A. Doane, U. S. Army, reached Disco, Greenland, in 1880.

Commander George W. De Long, U.

* The data for this article are very largely drawn from the exhaustive *Handbook of Polar Discoveries*, by General A. W. Greely.

Robert E. Peary, U. S. Navy

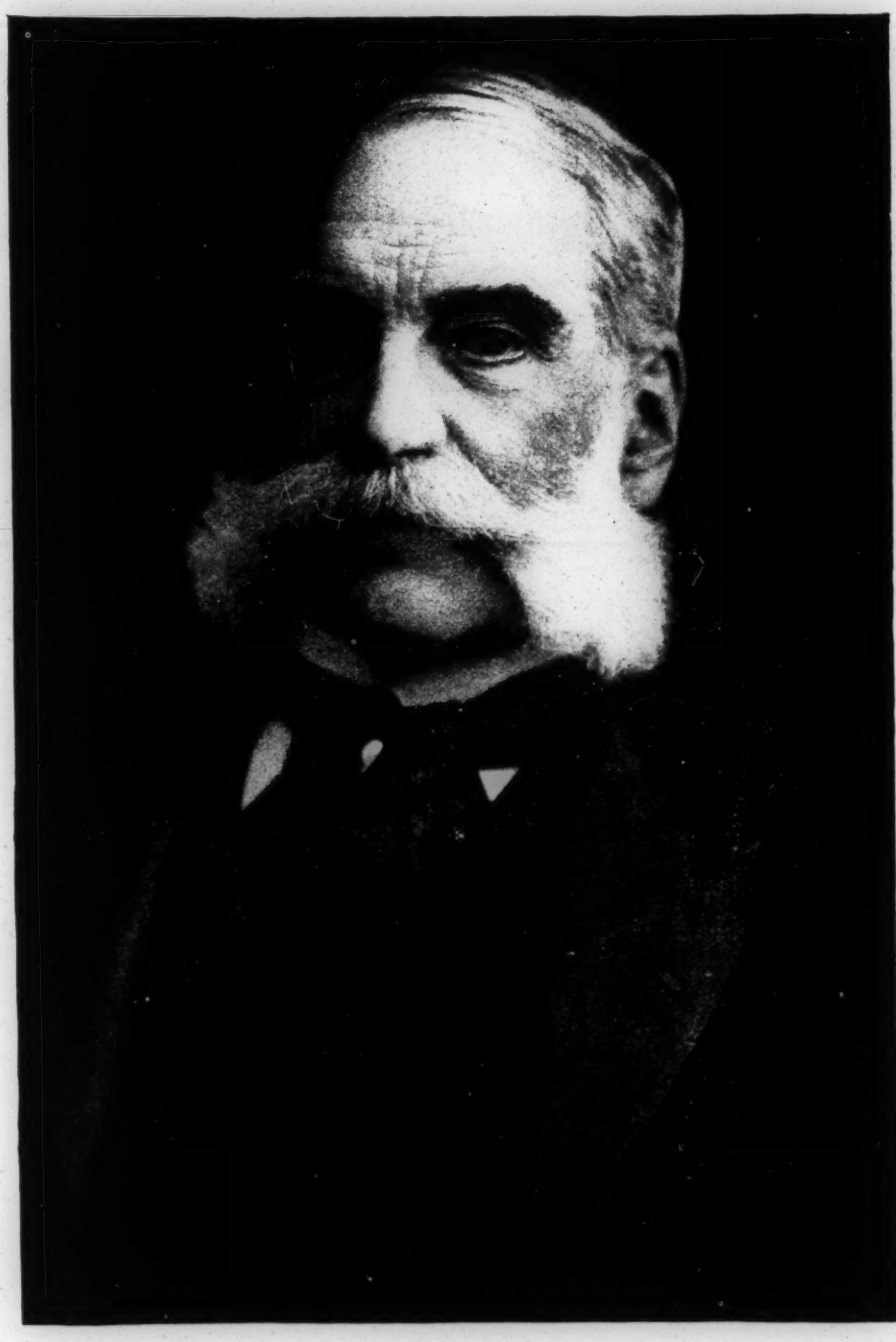
S. Navy, the first to explore the great Arctic Ocean to the north of Asia, 1879–1881, reached thereon 77° 36′ N., 155° E., in 1881.

In 1880 Captain C. L. Hooper, Revenue Marine Service, sailing on a summer voyage via Bering Strait, skirted the south shore of Wrangell Land,† about 71° 30′ N., 180° W., and landed on this island in 1881.

Commander R. M. Berry, U. S. Navy, in the Jeannette Relief Expedition of 1881, explored Wrangell Land to its northernmost point, in 71° 32′ N., about 180° W. In 1889 Captain, now Admiral, Stockton, U. S. Navy, reached Wrangell Land, in about 71° 30′ N., 180° W.

The Lady Franklin Bay International Polar Expedition, under Lieutenant, now General, A. W. Greely, U. S. Army, took station, in 1881–1883, on Grinnell Land,

† Wrangell Land was first visited by an American whaler, Thomas Long, who sailed along its southern coast, reaching 70° 46′ N., 180° W., in 1857, in which year it was also skirted by other whalers, Captains Bliven, Phillips, and Raynor.



Morris K. Jesup

President of the Peary Arctic Club and Honorary Member of the National Geographic Society

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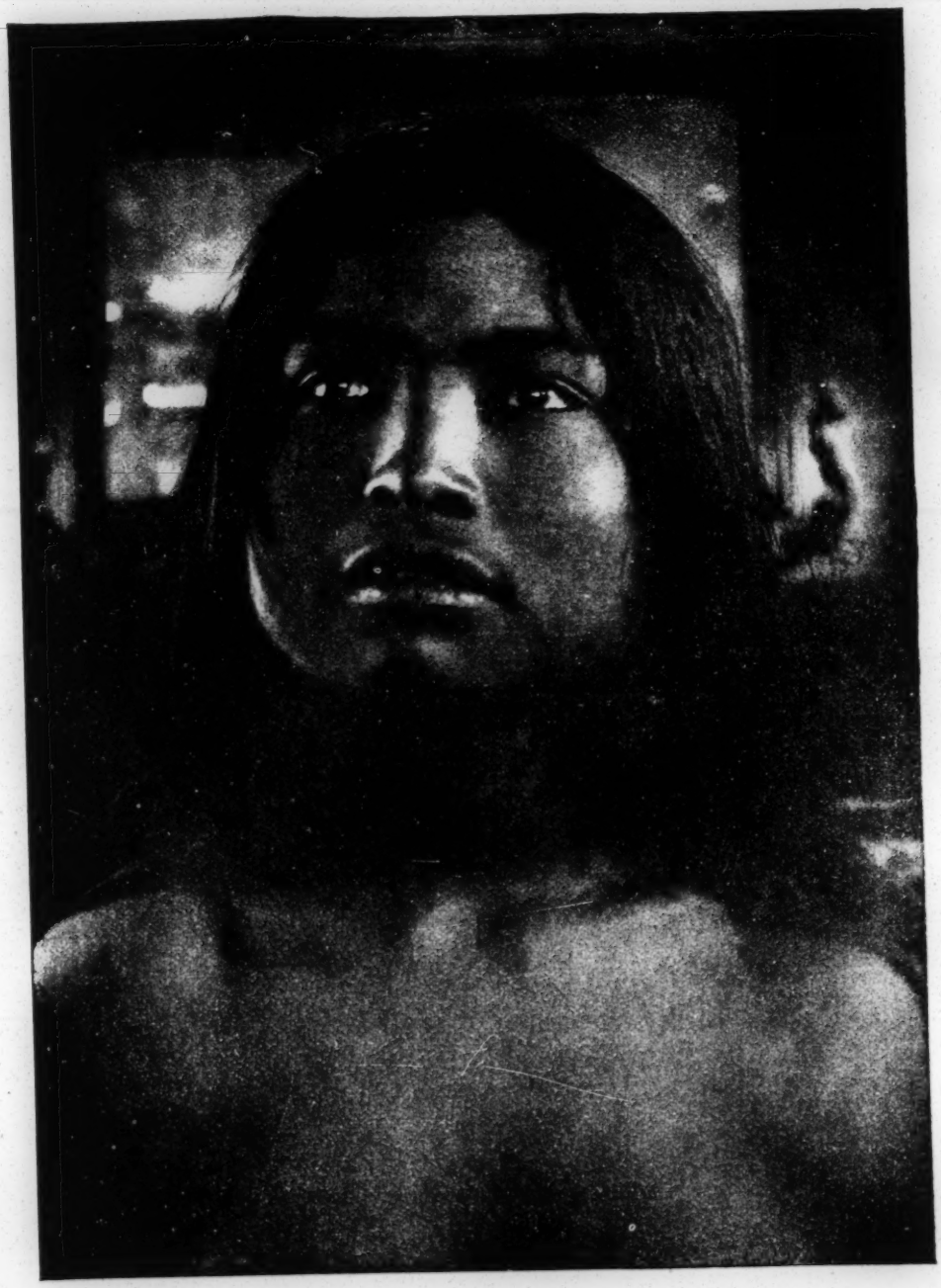
Live Bull Musk-ox at Close Quarters—Cape Columbia

Typical Eskimo Dog

Egingwah and Reindeer at Cape Hubbard

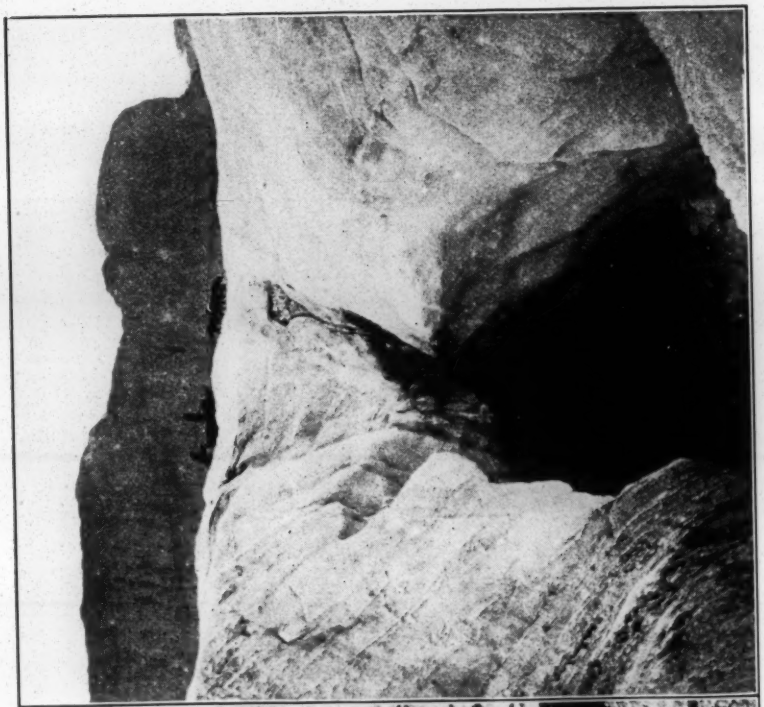


A Study in Bronze

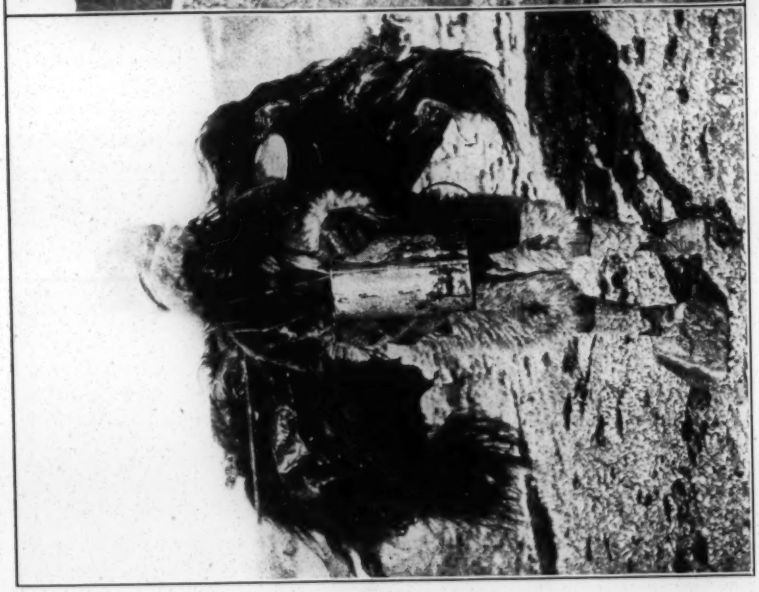
Typical face of Eskimo woman

Akatingwah

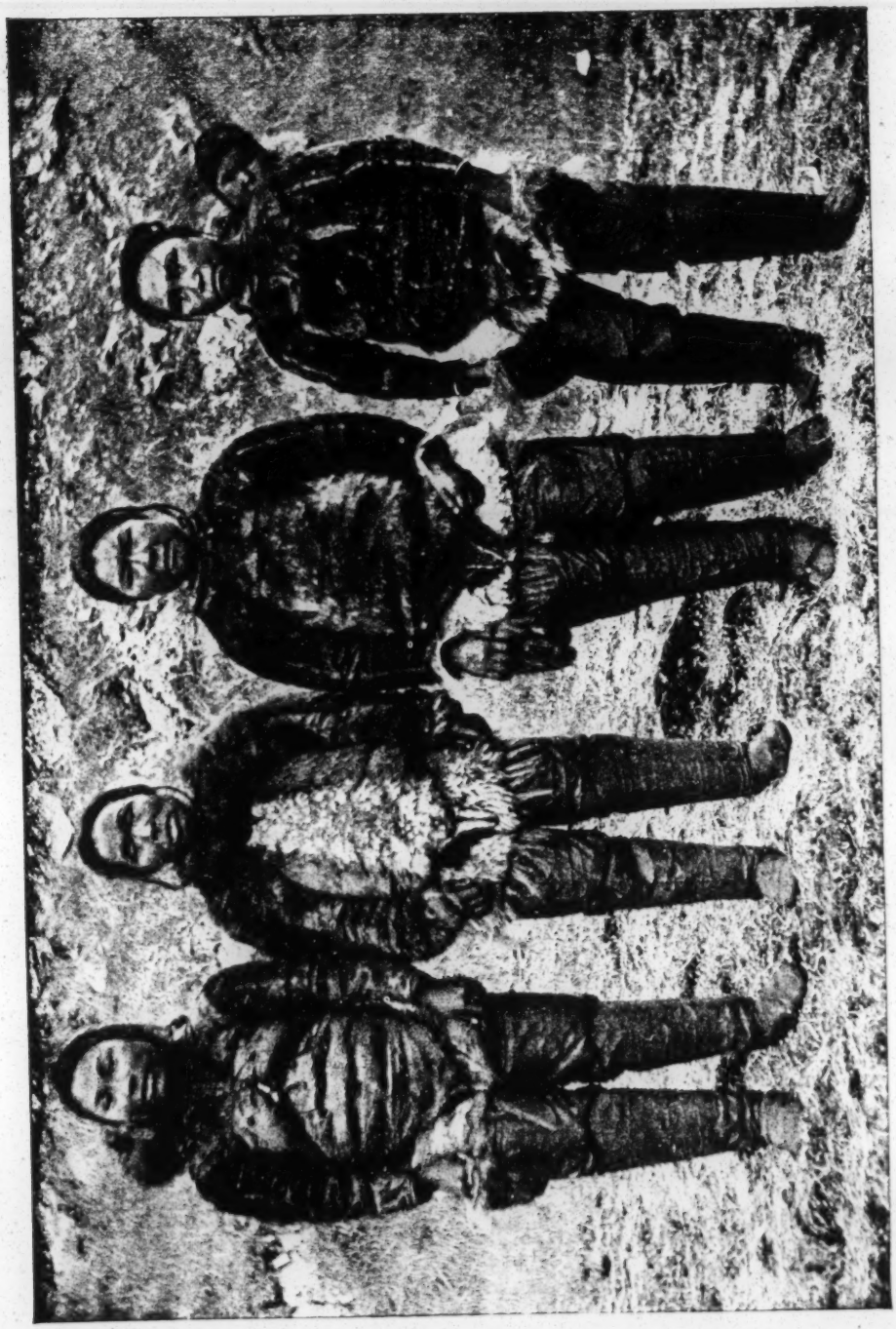
Wife of Ooblooyah, with baby



Sledging along Northernmost Land



An Eskimo Porter



A Group of Eskimo Women

in 81° 44′ N., 65° W. It attained, in 1882, 83° 24′ N., 41° W., on the northwest coast of Hazen Land. In 1883 it reached 82° 15′ W. on the northwest coast of Greenland, and also 80° 48′ N., 78° W., on Greely Fjord. The auxiliary expeditions of 1882, under W. M. Beebe, reached Cape Sabine, about 78° 30′ N., and that of 1883, under Lieutenant, now General, E. A. Garlington, U. S. Army, passed a few miles to the north of that cape, and Commander, afterwards Admiral, F. Wilde, U. S. Navy, reached that year the vicinity of Cape York, in the *Yantic*. The relief squadron of 1884, under Captain, now Admiral, W. S. Schley, U. S. Navy, likewise reached Cape Sabine.

Dr Franz Boas explored Baffin's Land in 1883–1884.

The most remarkable series of American expeditions is that due to the repeated efforts of Commander Robert E. Peary, U. S. Navy, which, beginning by a journey of fifty miles on the inland ice from Disco, in 1886, has ended in voyages, from 1892 to 1906 (except in 1897), that have covered entire north Greenland, northern Grinnell Land, and the adjacent Polar Sea. The main points reached were as follows: 1892, crossing the inland ice to Navy Cliff, 81° 37′ N., 34° W.; 1893, half-way across the inland ice, to about 80° N., 50° W.; 1895, across the inland ice to about 81° 40′ N., 34° W.; 1896 (summer voyage), Cape York; 1898, Fort Conger, 81° 44′ N., 64° W.; 1900, Polar Sea, 83° 54′ N., 30° W.; 1901, Lincoln Bay, about 82° N., 63° W.; 1902, Polar Sea, 84° 17′ N., 70° W.; 1906, Polar Sea, 87° 06′ N., *which is the nearest approach to the north geographic pole.*

Connected with Commander Peary's explorations there were auxiliary explorations, which visited the Greenland coast between Capes York and Sabine. Among these were: In 1891 and 1892, *Kite*, R. N. Keely and G. G. Davis; *Falcon*, H. G. Bryant, 1894, which reached, in Jones Sound, 76° 15′ N., 82° W.; the *Miranda*, under Dr F. A. Cook, visited, in a summer voyage, Sukkertoppen, Greenland, in 1894, about 67° N.; *Diana*, 1899, and *Erik*, 1901, H. L. Bridgman.

In 1894 Walter Wellman passed beyond Platen Island, north of Spitzbergen, reaching about 81° N. In his expedition to Franz Josef Land, 1898–1899, the latitude of 82° N. was attained by one party, while another reached 81° 26′ N., 65° E., on Graham Bell Island.

The Ziegler Expedition, commanded by E. B. Baldwin, in 1900–1901, reached Franz Josef Land, about 81° 30′ N.; that under A. Fiala, in 1903–1905, to Franz Josef Land, reached, in 1903, about 82° 04′ N. by sea. Auxiliary Ziegler expeditions in 1904 and 1905 were commanded by W. S. Champ, in *Fridtjof* and *Terra Nova*.

The expedition of Robert Stein to Jones Sound, 1899–1901, reached about 78° N.

A. P. Low, in the *Neptune*, after wintering in Cumberland Gulf, 1903–1904, reached, in the summer of 1904, Cape Sabine, Smith Sound.

There have been quite a number of Canadian expeditions, which, if not strictly Polar, were at least sub-Arctic. Among them may be mentioned the expedition of the Tyrrell brothers in the Barren Lands of Canada, 1893; the journeys of Dr Robert Bell in the Hudson Bay region, and especially his explorations of south Baffin Land in 1897; the discoveries of Ogilvie in the Yukon and Mackenzie basins, and the voyages of Lieutenant Gordon, Low, and others to Hudson Bay. J. E. Bernier, in *Arctic*, reached and landed on Melville Island, 75° 06′ N., 106° W.

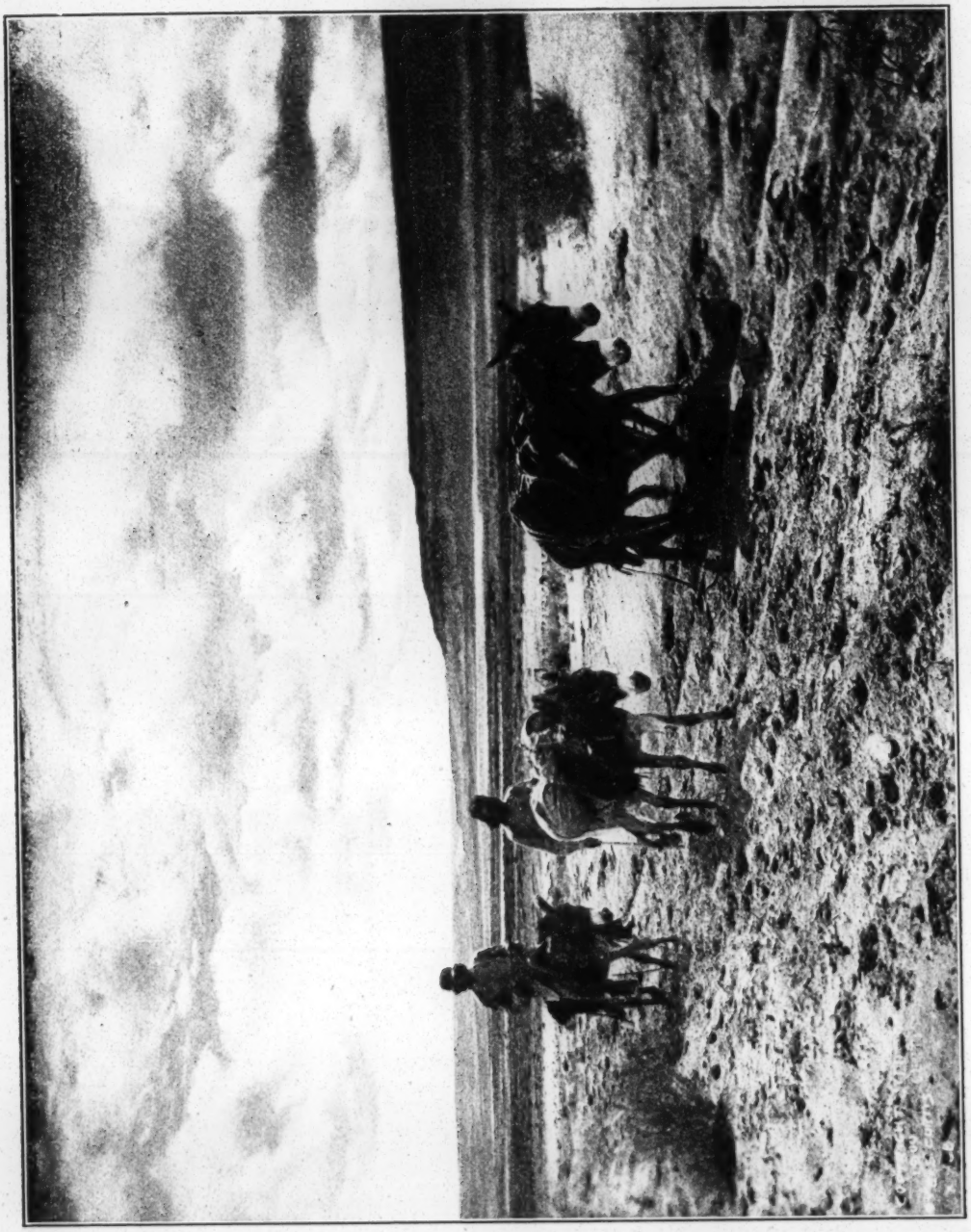
Walter Wellman established his balloon depot in 1906 at Danes Island, Spitzbergen, 79° 40′ N., and now returns to that station during the present summer.

Photographed and Copyrighted by Edward S. Curtis

A Zuni Girl

NORTH AMERICAN INDIANS

THE series of illustrations of different Indian types printed on the following pages of this number have been selected from the collection of Indian photographs by Mr Edward S. Curtis, of Seattle. Mr Curtis is a trained photographer, who some years ago determined to make a photographic record of the Indian tribes of the United States. He realized how rapidly the habits and character of such few tribes as remain on the continent are disappearing and the great value of photographs to the future generations who will have no opportunity of seeing primitive Indians. As the work progressed, the importance and largeness of the task as well as the expense of the undertaking became more and more apparent, but Mr Curtis continued the work for nine years unaided. Last year, however, he enlisted the coöperation of Mr J. Pierpont Morgan, of New York, who is contributing a generous sum toward the field work in order that the series of photographs may be completed more rapidly and the



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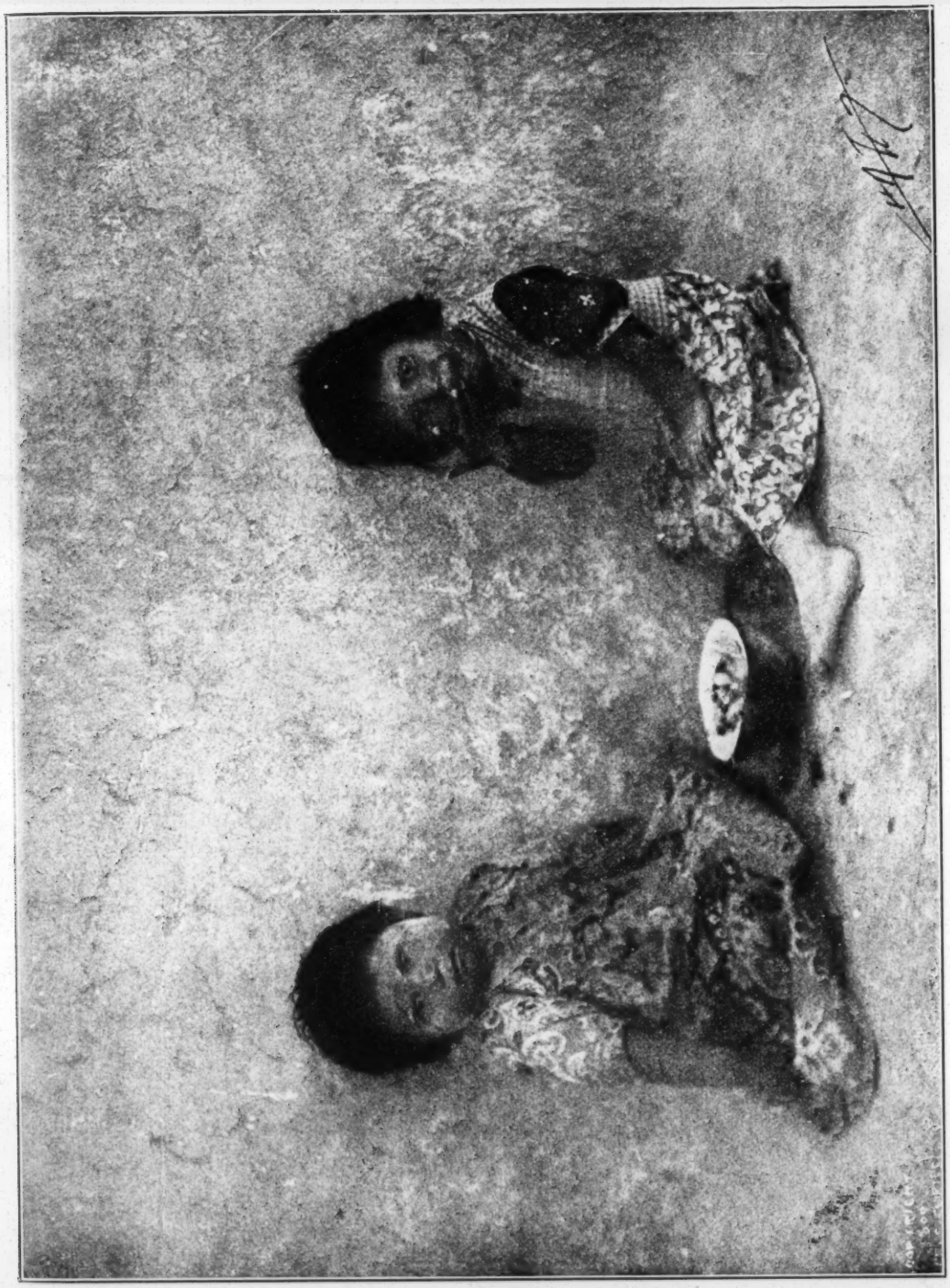
Hopiland



Hopi Children

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Hopi Maiden

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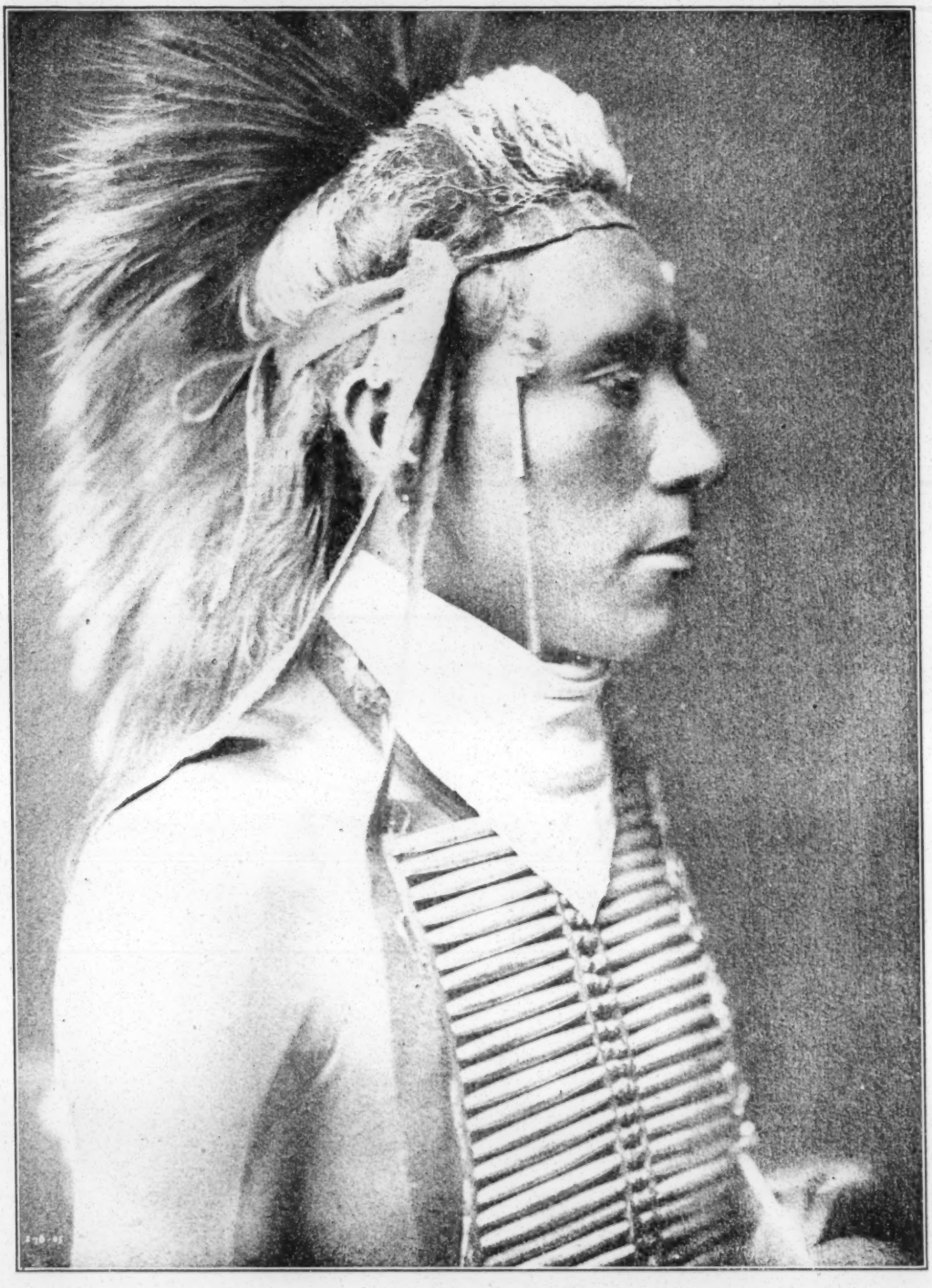
Sohowa Poqui—San Ildefonso Girl

Photographed and Copyrighted by Edward S. Curtis

A Mohave Mother

Photographed and Copyrighted by Edward S. Curtis

In the Orchard—San Ildefonso



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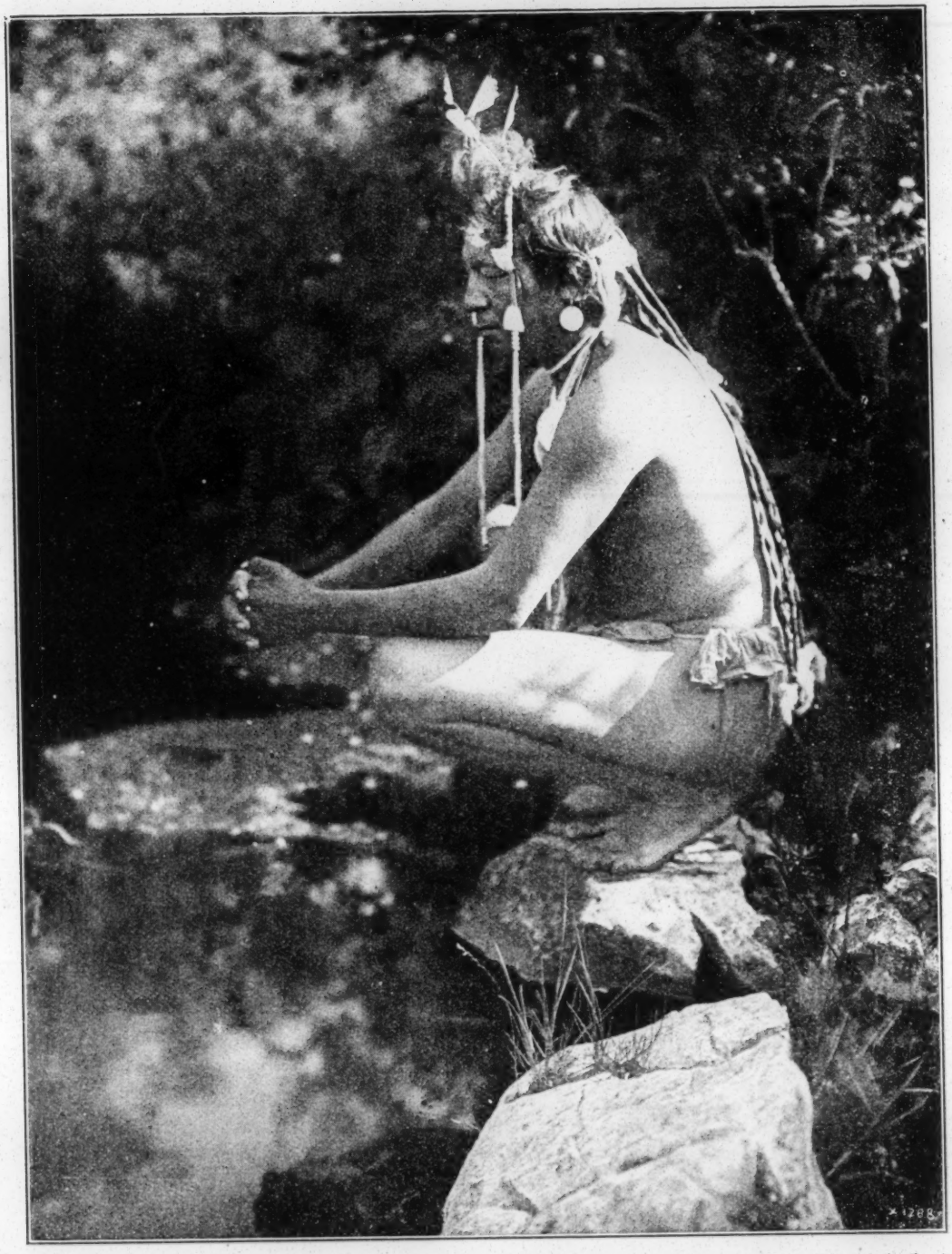
A Crow Youth



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At the Pool—Crow

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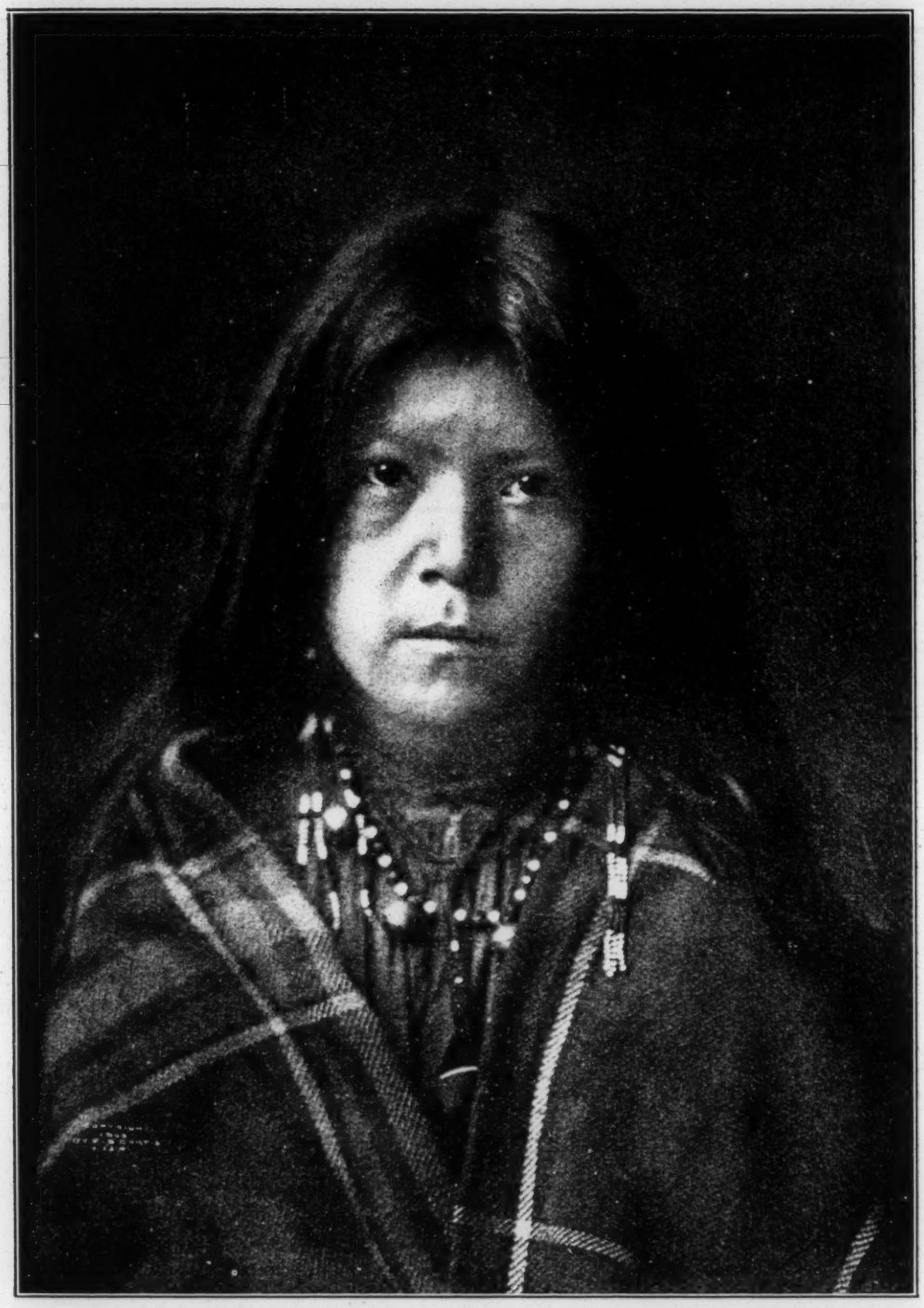
Apache Mother and Babe



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Chedeh—Apache

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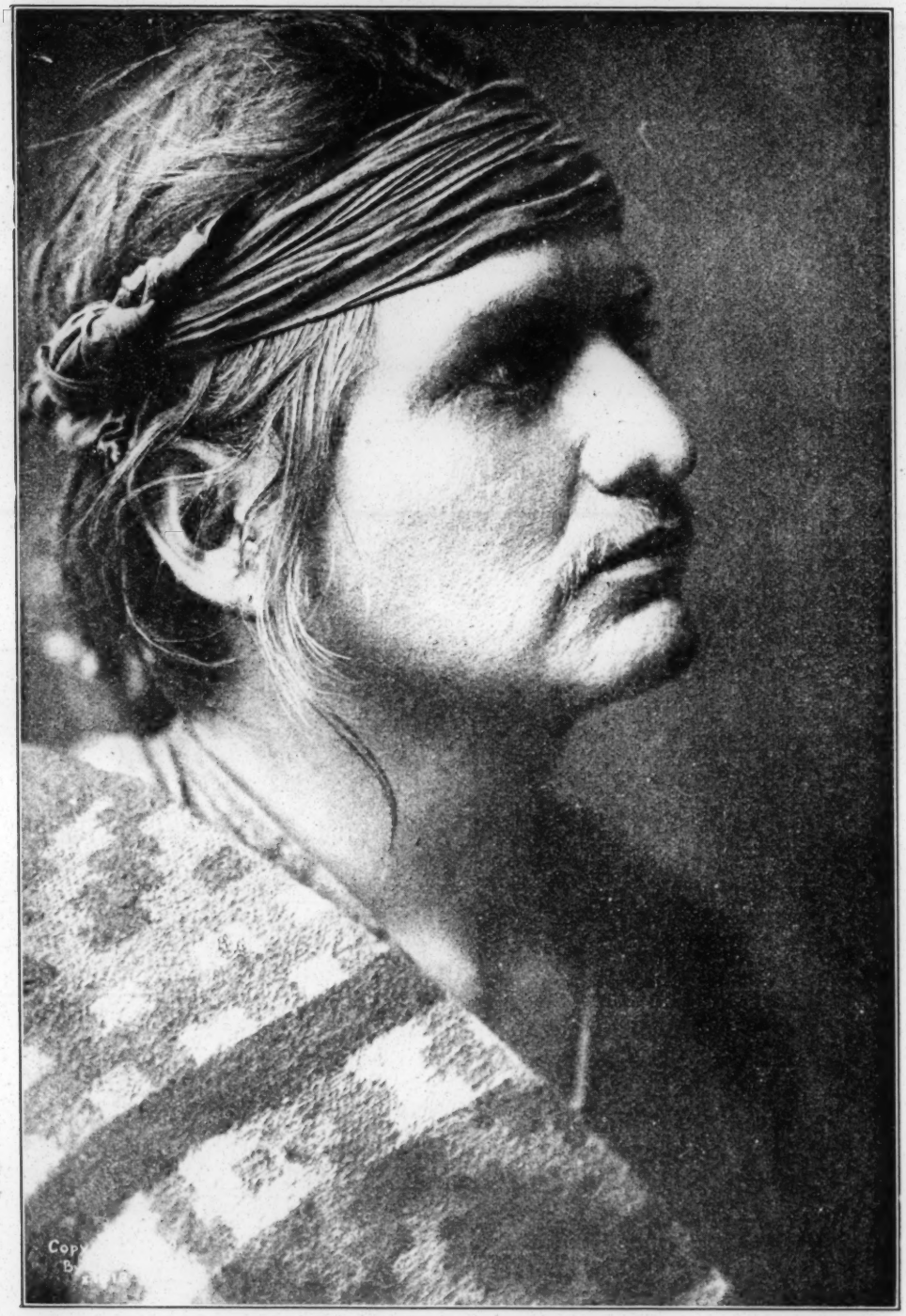
Son of the Desert—Navaho



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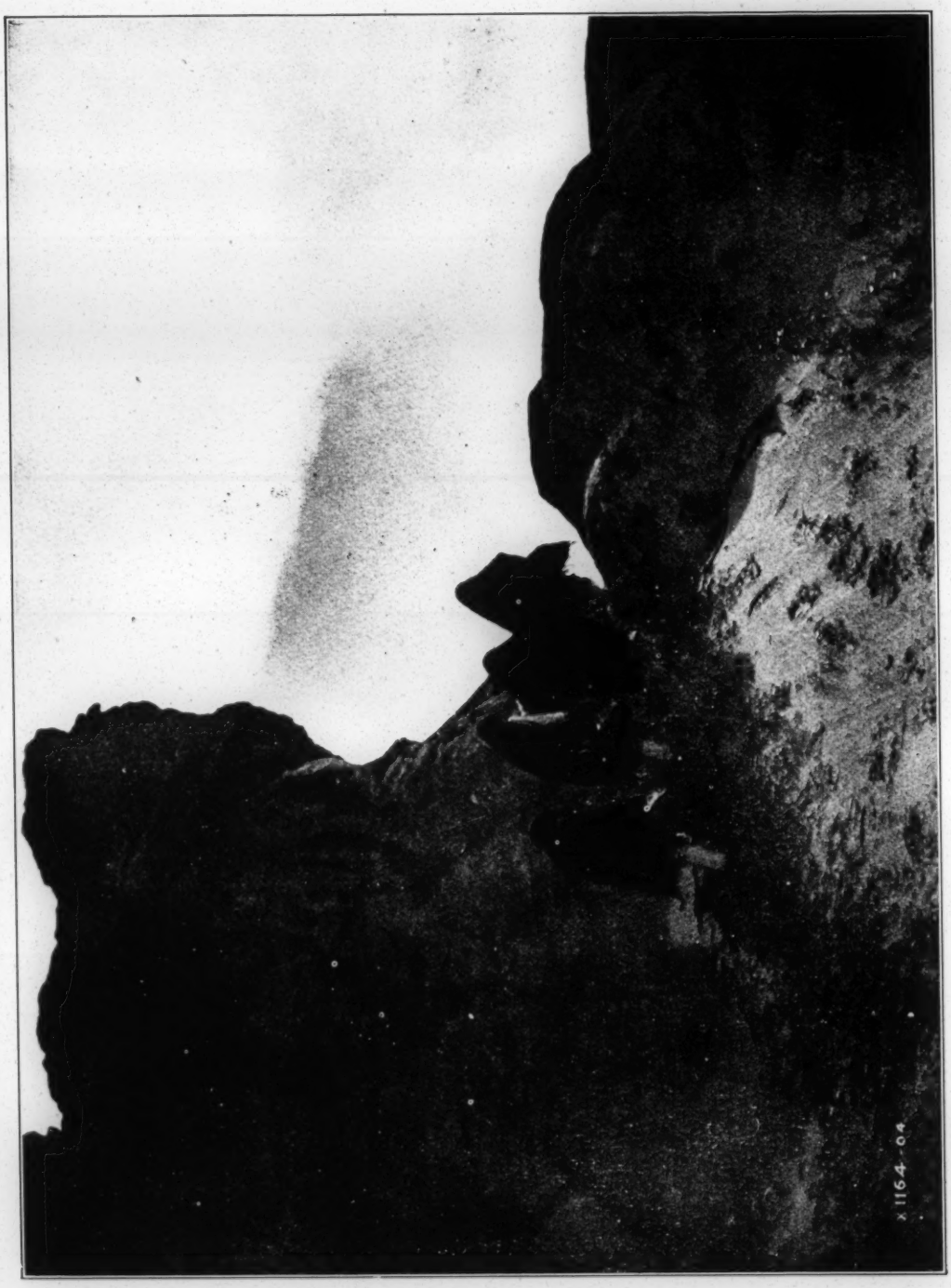
A Navaho



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Water Carriers, Acoma

whole work published. It is estimated that the field work will cost about $250,000. The following is quoted from the preface to the first volume which will be issued in September.

"It is the purpose of this series of volumes to give a complete record of all the tribes of North American Indians within the limits of the United States that are at the date of these studies (1898-1911) living in anything like a primitive condition.

"All phases of the Indian life are pictured—the Indians and their environment, the types of the old and young, their primitive home-structure, their handicrafts, their ceremonies, games, and customs—with an object, first to truth, then to art composition.

"In these illustrations there is no making of pictures for pictures' sake. Each must be what it purports to be. A Sioux must be a Sioux and an Apache an Apache; in fact, every picture must be an ethnographic record. Being photographs from life and nature, they show what exists, not what one in the artist's studio presumes might exist.

"It is not the purpose of these volumes to theorize on the probable origin of the Indian. This is what he is, not whence he came. The years of my life and the magnitude of the work preclude the possibility of going into the complete detail of many questions raised by the different tribes. However, it is possible to treat the life so fully as to show future generations broadly what each group was like."

The publication will consist of twenty volumes of text, accompanied with fifteen hundred full-page photogravures. Several of the photogravures in each volume will be hand-colored plates of ceremonial subjects.

Each volume will consist of about 350 pages, measuring 9½ x 12½ inches. The best imported hand-made paper will be used, one selected particularly for its lasting qualities.

As a supplement to the twenty volumes, there will be twenty portfolios, each containing thirty-six of the large pictures, 12 x 16, or in the complete set there will be seven hundred and twenty large pictures and fifteen hundred of the small, making a grand total of twenty-two hundred and twenty, these all to be of the very best photogravure work.

Mr. Frederick Webb Hodge, of the Smithsonian Institution, and editor of the "American Anthropologist," is the editor of the work. President Theodore Roosevelt has written the "Foreword."

It is published in parts, each part being complete in itself, treating of certain tribes. Parts will be delivered as completed, the plan being to publish an average of three a year and the work completed within seven years.

The first two volumes, which will appear in September, treat of the Apaches, Jicarillas, and Navahoes. Volume 2 will cover the many tribes in southwestern Arizona and in the Colorado, Gila, and Salt River valleys. The different Sioux tribes of North and South Dakota will come next in order in volume 2, and volume 4 will treat of the tribes of eastern Montana. The fifth volume will depict the tribes of western Montana and Idaho, and the sixth the tribes of eastern Washington.

Other volumes will take up the Mission Indians of southern California, the aborigines of northern California and Oregon; those on the northern Pacific coast and Puget Sound and the coast Indians of Alaska and the Pacific coast. One will be devoted to the Hopis and one to the other different Pueblo tribes. There probably will be a volume on the Seminoles of Florida, and Canada will have, without doubt, one volume which will practically be what might be called a treatise on the "Wood Indians." The final volumes will take up the tribes in Oklahoma and Indian Territory.

President Roosevelt has written the "Foreword" which follows:

"In Mr Curtis we have both an artist and a trained observer, whose pictures are pictures, not merely photographs; whose work has far more than mere ac-

curacy, because it is truthful. All serious students are to be congratulated because he is putting his work in permanent form; for our generation offers the last chance for doing what Mr Curtis has done.

"The Indian as he has hitherto been is on the point of passing away. His life has been lived under conditions through which our own race passed so many ages ago that not a vestige of their memory remains. It would be a veritable calamity if a vivid and truthful record of these conditions were not kept. No one man alone could preserve such a record in complete form. Others have worked in the past, and are working in the present, to preserve parts of the record; but Mr Curtis, because of the singular combination of qualities with which he has been blessed and because of his extraordinary success in making and using his opportunities, has been able to do what no other man ever has done; what, as far as we can see, no other man could do.

"He is an artist who works out of doors and not in the closet. He is a close observer, whose qualities of mind and body fit him to make his observations out in the field, surrounded by the wild life he commemorates. He has lived on intimate terms with many different tribes of the mountains and the plains. He knows them as they hunt, as they travel, as they go about their various avocations on the march and in the camp. He knows their medicine men and sorcerers, their chiefs and warriors, their young men and maidens. He has not only seen their vigorous outward existence, but has caught glimpses, such as few white men ever catch, into that strange spiritual and mental life of theirs, from whose innermost recesses all white men are forever barred.

"Mr Curtis in publishing this book is rendering a real and great service—a service not only to our own people, but to the world of scholarship everywhere."

George Bird Grinnell writes as follows:

"I have never seen pictures relating to Indians which, for fidelity to nature, combined with artistic feeling, can compare with these pictures by Curtis. Today they are of high scientific and artistic value. What will they be a hundred years from now, when the Indians shall have utterly vanished from the face of the earth? The pictures will show to the man of that day who and what were his predecessors in the land. They will tell how the Indian lived, what were his beliefs, how he carried himself in the various operations of life, and they will tell it as no word-picture could ever tell it. He who remembers the two or three plates in Jonathan Carver's 'Travels,' or Bodmer's splendid illustrations in Maximillian's great work, cannot fail to realize how great a difference exists between a written and a pictured description.

"The pictures speak for themselves, and the artist who has made them is devoted to his work. To accomplish it he has exchanged ease, comfort, home life, for the hardest kind of work, frequent and long-continued separation from his family, the wearing toil of travel through difficult regions, and finally the heart-breaking struggle of winning over to his purpose primitive men, to whom ambition, time, and money mean nothing, but to whom a dream or a cloud in the sky, or a bird flying across the trail from the wrong direction, means much."

THE EAST INDIANS IN THE NEW WORLD

By Harriet Chalmers Adams

"IN my trip around the world, I met no people so picturesque and interesting as the Hindus," said a woman to me the other day. "I regret that India is so far away," she added, "for I long to study its attractive natives."

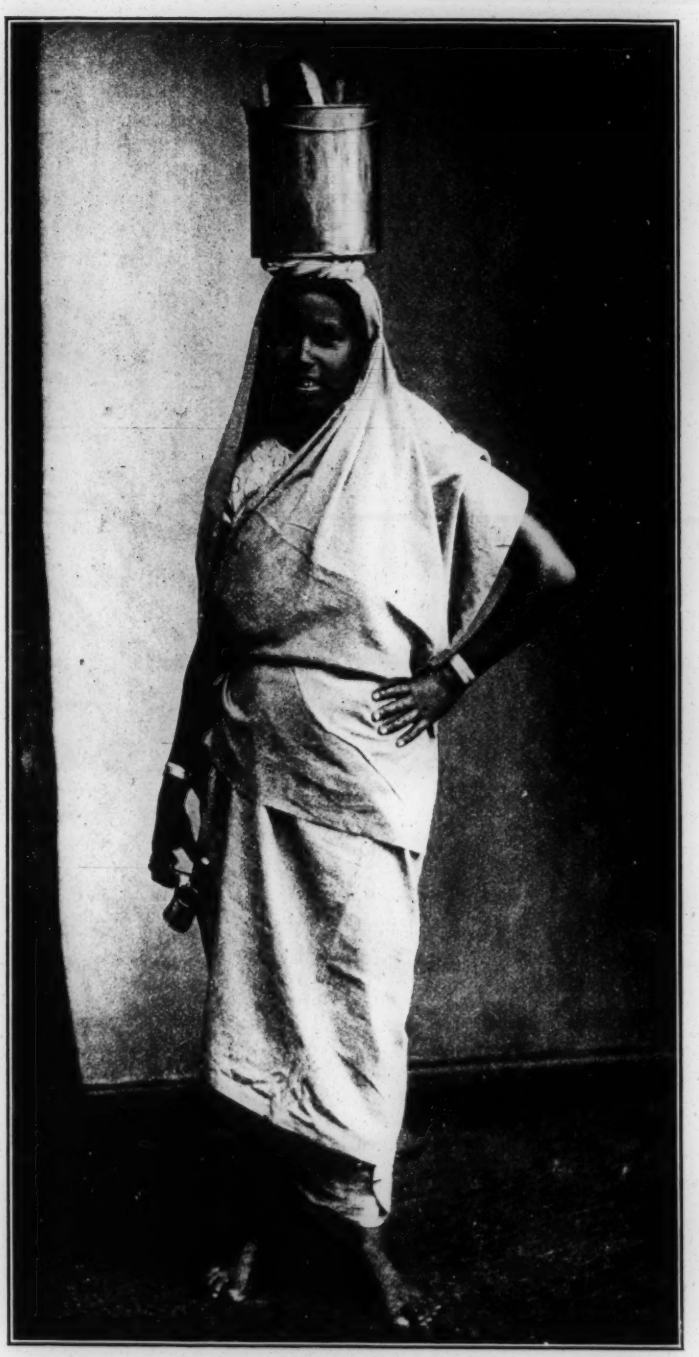
I surprised her by stating that she need not return to India to fulfill her desire; that not far south, in our own half of the world—in Trinidad, most beautiful of the West Indian islands—are over one hundred thousand transplanted East Indians. On the mainland of South America, also, in British and in Dutch Guiana, are found in large numbers these quaint people of the Old World.

Transplanted by the British government as indentured laborers to work upon the sugar estates, these orientals have brought with them their home customs, dress, and religion. Especially in Trinidad one delights in studying them, since that verdant isle seems a pleasing setting for the grace and beauty of the dusky women, the strength of feature and dignity of bearing of the turbaned men.

Perhaps it is by contrast with the coarse Africans, who form the greater portion of the population of the West Indies and the Guianas, that these people of an ancient race stand out in the traveler's remembrance as a more fitting type in lands of such great natural beauty.

We were in Port of Spain, Trinidad, at Christmas time, a year ago, and on a number of days during the holiday season the great "savanna," or park in the heart of the city, was thronged with the

Sacred Zebus from Far-away India



In Her Working Gown

"coolies," as the East Indians are locally termed.

It was a brilliant picture — the dark-eyed, dark-haired women draped in their brightly colored scarfs, their plump arms covered with heavy silver bracelets, their ears, noses, necks, and ankles decorated with gold and silver ornaments; the men in sombre shades, but equally picturesque in their huge white turban and abbreviated loin-cloths, their thin legs bare. Temporary booths were erected under the great spreading saman trees, where brass ornaments from Benares were displayed, while, as another reminder of far-away India, zebus, or sacred oxen, grazed near by.

From my window I gazed out over this kaleidoscopic scene to the purple hills, crowned with mist, which form a background to the grassy "savanna," and wondered if any picture could be more effective.

The "coolies" who are employed on plantations scattered over the island meet in town on such holidays to greet friends and relatives, to gossip, and to trade. At other seasons one may see them throughout the country, laboring in the

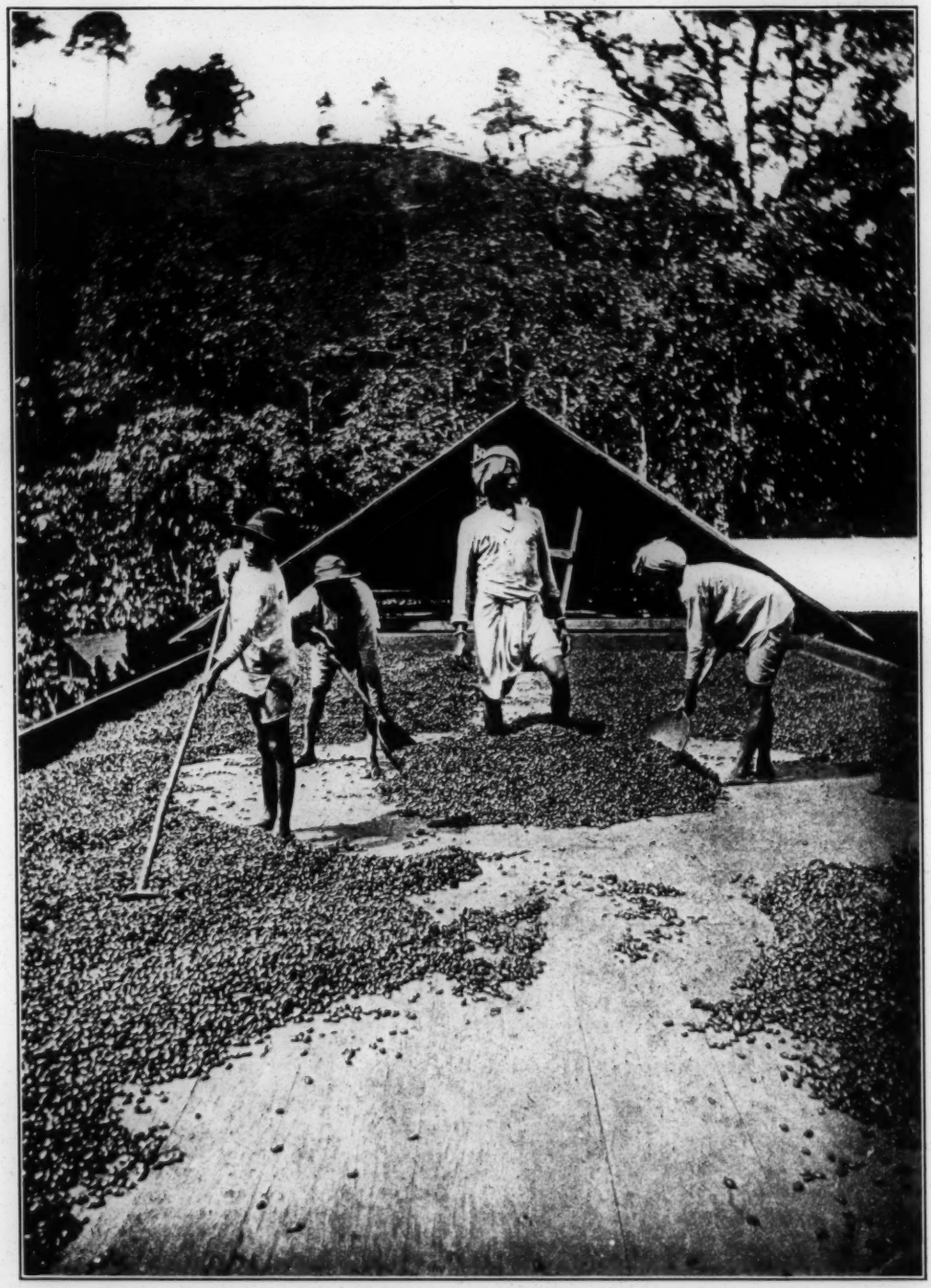
In Town for a Holiday

cane fields, bearing burdens along the well-kept roads, or busily employed in or about their thatched cabins.

Their activity is a decided contrast to the idleness of the blacks, and indeed to the indolence of the Africans may be traced the cause of "coolie" immigration to this portion of the New World. As long ago as 1838, after the emancipation of slaves in British Guiana, labor became unavailable, the negroes refusing to work excepting for exorbitant wages. As a natural result, the owners of the sugar estates were ruined and the plantations were abandoned. The salvation of the colonies lay in the introduction of Asiatics by the imperial government.

A unique sight today in the harbors of Port of Spain and Georgetown is the arrival of a "coolie" ship laden with its oriental cargo. What stories of human interest might be written of these silent, bronze people facing new experiences in a strange land! Many of them feel that they may never return to Calcutta, since by crossing the seas they have defied an edict of that terrible god of the Hindus, "caste."

The passage of the East Indians is paid by the government, as are certain agreed wages during their term of indenture. Having served the allotted time, they are given passage back to India or permitted to live as "free coolies" in the colonies. Comparatively few avail themselves of the return passage, preferring to remain until they have saved sufficient capital with which to establish themselves in



Hindoos Employed on a Cacao Estate—Trinidad

"Holy" Men from the Far East—Trinidad

Bronze Beauty—Trinidad

their native land. They become planters and merchants in a small way and many of them leave British soil for the near-by Dutch colony.

Incomprehensible to the western mind are the ways of these people. The husband not only owns the jewelry with which he decks his wife, but appoints himself judge of her right to live. Defying the majesty of the law, he chops off her head if she prove unfaithful, or resorts to the more refined method of sprinkling powdered glass in her food. Mysterious deaths are of frequent occurrence and the government chemists are kept busy investigating such cases.

The women are attractive in appearance, with appealing eyes, rounded arms, and lithe bodies. It is their custom to massage daily with cocoanut oil. They have a passion for gaudy colors, and in gala attire resemble "a flock of rainbows."

The men are solemn-looking creatures, with those all-knowing eyes of the Far East, and the long-haired priests are positively uncanny. In passing one of these "holy men" on the highway, I invariably looked over my shoulder furtively, expecting to see blossoming rosebushes springing out of space and lads climbing skyward on invisible ladders.

We engaged one of the magicians to perform for us at our hotel, but evidently he was not "the genuine article" or we were so skeptical as to dispel all illusions. We felt at his departure that we had not received our two shillings' worth of "thrills" and that sword-swallowing detracted from the dignity of an adept.

The Hindus look with horror on the custom of eating beef, since to them the bull is sacred. Strange are the ways of Fate, that these people should now be ruled by a race who regard beef as the important article of diet!

The cross of the East Indians in the New World is the enforced association with the Africans. These "lords of all creation" look with contempt upon the orientals. "He only a coolie man!" says the lazy, ignorant negro, disgust written on every line of his face. The brown man—this descendant of an old and proud race, who regards the negro as little more than a savage—does not retaliate, but goes steadfastly on with his work.

One day I met three types on a country road near Georgetown—an East Indian, a negro, and a native Indian. The latter was bringing from his forest home into town baskets and hammocks of his own manuufacture for sale at the market. His dignity of bearing equaled that of the one whose namesake he is, and the African suffered by contrast with both.

In associating the Hindus with life in the West Indies and the Guianas, it has seemed to me a strange coincidence that these East Indians, whom Columbus thought he had discovered, should have drifted at last to the New World, to mingle with the surviving American aborigines, who, through the Great Admiral's mistake, bear their name.

GEOGRAPHICAL CONGRESS

THE preliminary program has been issued of the Ninth International Geographical Congress, which will be held at Geneva, Switzerland, July 27 to August 6, 1908. The Congress is under the auspices of the Geographical Society of Geneva, which at the same time celebrates the fiftieth anniversary of its founding. The Honorary Presidents of the Congress are the President of the Swiss Republic, the President of the Federal Council and of the Canton of Geneva, the King of Belgium, and the King of Roumania. The President of the Congress will be Dr Arthur de Claparède, President of the Geographical Society of Geneva. The committee in charge requests that all papers to be submitted to the Congress be handed in by November 1, 1907. A series of interesting excursions to different parts of Switzerland is being arranged under the auspices of the Congress.

A Moqui Girl of New Mexico

"In other places we traversed monster pressure ridges that splintered and thundered under our feet"

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The chapter on details of equipment and advice to explorers might well be called a "Guide to the Pole."

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—*Philadelphia Inquirer.*

"One can almost feel the stinging snow and shiver from imaginary blasts."—*Springfield Republican.*

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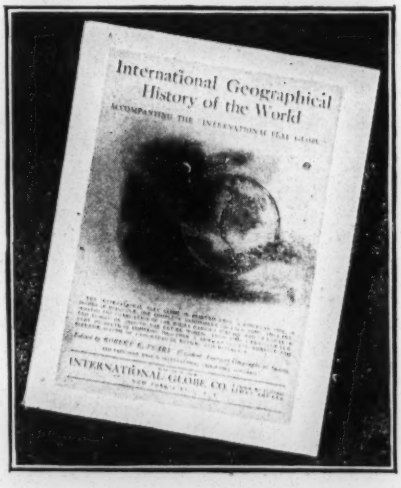

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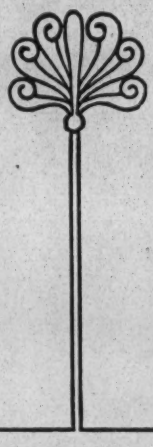

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